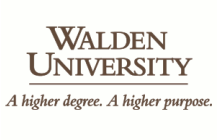

2017

Discrimination, Coming-Out, and Self-Esteem as Predictors of Depression and Anxiety in the Lesbian Community

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
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Abstract

Discrimination, Coming-Out, and Self-Esteem as Predictors of Depression and Anxiety in the Lesbian Community

by

Adrien Purvis

MS, University of Phoenix, 2009

BA, Brooklyn College, 1998

Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

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June 2017

Abstract

Mixed findings in the research on mental health issues in the lesbian community have resulted in conflicting conclusions as to whether the prevalence rate of generalized anxiety disorders and depression in the lesbian population differs from that of non-lesbians. The variability of findings may be due to factors such as discrimination, coming-out, and self-esteem. Using the minority stress model a framework, the purpose of this quantitative survey study was to examine whether perceptions of discrimination, coming-out, and self-esteem levels predict lesbians' anxiety and depression. Participants anonymously completed online measures of the Outness Inventory, the Schedule of Sexually Discriminatory Events, the State-Trait Anxiety Inventory, the Beck Depression Inventory-II, and the Rosenberg Self-Esteem Scale. The snowball sample consisted of 105 self-identified lesbian women from the United States. Hierarchical regression was used to test the hypotheses. According to study results, frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predicted depression and anxiety, with low self-esteem as the only significant predictor of depression and anxiety. The findings were only partially consistent with the minority stress model because perceived discrimination did not predict depression or anxiety. This study facilitates positive social change by pointing out and focusing on the need for mental health interventions specific to the stresses that lesbians face pertaining to low self-esteem, as that predicts their anxiety and depression.

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Dedication

I dedicate this dissertation to my mother, the late Doristene Angelina Purvis for all of her guidance and for teaching me that failure is not an option. Next, I would like to dedicate my dissertation to my family, friends and colleagues. They extended unconditional support and patience throughout this process. I thank everyone for being a part of this positive and productive educational life journey.

Acknowledgments

I would like to thank my dissertation chairperson, Dr. Tracy Masiello, who provided support, encouragement, patience and guidance during this process. I would also like to extend my thanks to my committee member, Dr. Stephen, for his support and guidance. You have both helped to develop my skills as a researcher.

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Chapter 1: Introduction to the Study

Introduction

Researchers have examined depression and anxiety in the lesbian community; however, scholars have not determined the impact that perceived discrimination, coming-out, and low self-esteem have on the depression and anxiety experienced by lesbians. Lesbians, gays, and bisexuals may suffer from mental and physical health problems due to their minority status and minority stress (Dentato, 2012; Denton, 2012; Kelleher, 2009). Dentato (2012) reported that minority stress refers to "the relationship between minority and dominant values and resultant conflict with the social environment experienced by minority group members" (p. 1). This minority stress includes perceptions of stigma, prejudice, rejection, heteronormativity, and internalized homophobia that impact health outcomes. Minority groups experience unique stressors that are related to health outcomes and physical and mental health problems (Dentato, 2012; Denton, 2012; Kelleher, 2009). The potential positive social changes of this study include the identification of stressors that lead to anxiety and depression in the lesbian community and a potential increase in self-esteem and coming-out due to a specific study of the experiences within the lesbian population. In this chapter, I present a discussion of the background information, the statement of the problem to be addressed, the purpose of the study, and the research questions and hypotheses. This is followed by a discussion of a theoretical framework; the nature of the study; definitions; assumptions, scope, and delimitations; limitations; study significance; and a chapter summary.

Background

Lesbian-, gay-, bisexual-, transgender-, and queer- (LGBTQ; Cochran, 2001) identified people, like heterosexuals, experience mental illness (National Alliance on Mental Illness [NAMI], 2007). However, according to NAMI (2007), LGBTQ people may experience unique risks related to mental health and well-being, and researchers have revealed that people within the LGBTQ community have up to 2 1/2 times the prevalence rate for anxiety, depression, and substance use disorders than is found in the general population (NAMI, 2007). Lesbian and bisexual women are reported to have three times more diagnoses of generalized anxiety disorders than is found in the general population. Reasons for these outcomes include the experience of societal stigma with prejudice and discrimination faced by LGBTQ people from family, peers, and society (NAMI, 2007).

DeAngelis (2002) suggested that people within the homosexual and bisexual communities experience greater discrimination compared to their heterosexual counterparts. Forty-two percent of homosexuals and bisexuals have suggested that their sexual orientation has impacted them negatively, causing interruption to their quality of life both physically and psychologically (DeAngelis, 2002).In addition to their feelings of discrimination, the prevalence of the depression, panic attacks, and psychological distress is higher among bisexual men and women; sexual orientation differences are seen as the result for the mental health issues (DeAngelis, 2002).

Regarding mental health outcomes for lesbians, scholars reported that positive mental health outcomes were found for lesbians and bisexual women if the women were

"out," disclosing a lesbian, gay, and bisexual (LGB) identity to others (DeAngelis, 2002; Legate, Ryan, & Weinstein, 2012; Patterson & D'Augelli, 2013). Rothblum and Factor (2001) used the Rosenberg Self-Esteem Scale and the Brief Symptom Inventory (BSI) and demonstrated that, with heterosexual sisters as a control group, lesbians who were open about their sexuality were similar in reports of being mentally healthy to heterosexual-identified sisters and had higher self-esteem. Thus, findings are mixed for mental health outcomes of lesbian populations, and it is important to understand related factors in order to understand the lesbian experience (DeAngelis, 2002; Patterson& D'Augelli, 2013; Rothblum & Factor, 2001). Ross, Dobinson, and Eady (2010) explored the perceived determinants of mental health for the bisexual community compared to lesbians, gay men, and heterosexual people. In a qualitative investigation, Fredriksen-Goldsen, Kim, Barkan, Muraco, and Hoy-Ellis (2013) examined monosexism and biphobia and its perceived impact on mental health and found that there were social structures (macrolevel), a level that is large in scale or scope; interpersonal factors (mesolevel), a level that is rests in the middle; and/or individual factors (microlevel), a level that is small in scale or scope; related to mental health. At the macrolevel, society perceives an individual in a particular context; at the mesolevel, there is an interpersonal relationship between an individual and his or her partner; at the microlevel, the individual views himself or herself in the context of societal norms (Fredriksen-Goldsen et al., 2013). While the study's focus was on bisexual people, sexual minority status leads to mental and physical health outcomes, including obesity and anxiety, which is relevant to the focus of this study (Thomeer, 2013).

Sexual minority status is associated with discrimination and bullying, which impacts quality of life (Patrick, Bell, Huang, Lazarakis, & Edwards, 2013). Being bullied and/or victimized because of minority sexual orientation is linked to depressed mood or contemplation of suicide across age groups (Patrick et al., 2013; Robinson & Espelage, 2013). The stigma of being a sexual minority, along with perceived discrimination, impacts mental health (Bockting, Miner, Romine, Hamilton, & Coleman, 2013; Choi, Paul, Ayala, Boylan, & Gregorich, 2013). Guided by the minority stress model, Bockting et al. (2013) found that sexual minority status was related to a high prevalence of clinical depression (44.1%), anxiety (33.2%), and somatization (27.5%), and social stigma was positively related to psychological distress.

Coming-out, or making a sexual identity known to others (Legate, Ryan, & Weinstein, 2012) is also related to a decrease in symptoms of anxiety and depression. Corrigan, Kosyluk, and Rüsch (2013) reported that coming out could reduce self-stigma. Corrigan et al. focused on the self-stigma related to having a mental illness and found that disclosure as a sexual minority leads to empowerment and can reduce self-stigma related to that identity, which can positively impact mental health outcomes. It is important to reduce the shame attached to stigma and increase self-esteem in lesbian populations (Greene & Britton, 2013).

There are many reasons why sexual minorities, considered to be people within the LGBTQ communities, harm themselves physically and psychologically. However, there has not been a significant study on the factors that can be attributed to mental health instability and discrimination (House, Van Horn, Coppeans, & Stepleman, 2011;

Meyer, 2003). A majority of the mental health issues, such as suicide and discrimination, are found in the LGBTQ community, and more specifically, in the adolescent population. Victimization because of being different than the sexual majority, and the feeling of being ostracized, as well as interpersonal trauma and discriminatory events, have been viewed as factors influencing the mental health issues confronting the LGBTQ community, giving them a greater propensity for suicide when compared to their heterosexual counterparts. The minority stress model ca be used to better understand the increased risk of mental health issues in the lesbian community (House et al., 2011).

Lesbians experience greater levels of anxiety and depression compared to their heterosexual counterparts (DeAngelis, 2002), and scholars have linked discrimination and coming out to self-esteem, anxiety, and depression in some populations (Corrigan et al., 2013; Legate et al., 2012; NAMI, 2007). There are no definitive answers in regards to mental health outcomes concerning the lesbian population (DeAngelis, 2002; Patterson& D'Augelli, 2013; Rothblum & Factor, 2001). Thus, there is a gap in knowledge in the discipline that the study will address by examining the factors that can be attributed to mental health issues in the LGBTQ community (House et al., 2011; Meyer, 2003). The current study is needed to explore the impact of discrimination, coming-out, and self-esteem on depression and anxiety in the lesbian community.

Problem Statement

Findings regarding mental health issues and related predictors in the lesbian community are mixed because of the lack of specificity in regards to lesbian population

size (House et al., 2011). In this study, I will examine whether or not perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in the lesbian community (Meyer, 2003). Researchers have found, that in some cases, lesbian populations suffer from greater prevalence of generalized anxiety disorders, depression, and other mental health problems compared to non-lesbians (Bockting et al., 2013; Choi et al., 2013; NAMI, 2007; Ross et al., 2010). However, scholars have also found that the lesbian population demonstrates similar levels of mental health issues, and, in some cases, even lower levels of mental health issues and higher levels of self-esteem than the non-lesbian populations (DeAngelis, 2002; Patterson& D'Augelli, 2013; Rothblum & Factor, 2001). There are factors that may be related to these mixed outcomes that include perceptions of discrimination, stigma, and coming-out (DeAngelis, 2002; NAMI, 2007; Patterson& D'Augelli, 2013).

Examples of the issues that have been researched in the LGBTQ community include the exploration of autonomous relationships and its association to wellness (Legate, Ryan, & Weinstein, 2012); interpersonal trauma and discriminatory events being predicators of suicide and non-suicide within the LGBTQ communities (House et al., 2011), and the impact that disclosing a sexual identity has on self-stigmatization (Bockting et al., 2013). There is a gap in the existing research on the factors that are involved in outcomes of anxiety and depression in the lesbian community. Scholars have not explained whether or not perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in this population, supporting the need for the current study.

Purpose of the Study

The purpose of this quantitative research study is to determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in lesbian women. The independent variables are perceptions of discrimination, coming-out, and self-esteem levels. The dependent variables are depression and anxiety. The descriptive variables are gender, age, race/ethnicity, employment status, and income level.

Research Questions and Hypotheses

The research questions are as follows:

RQ1: do perceptions of discrimination, coming out, and self-esteem adequately predict depression in women identifying as lesbian, as measured by the Beck Depression Inventory, in lesbian women?

H_0: perceptions of discrimination does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: perceptions of discrimination adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

H_0: coming out does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: coming out adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

H_0: self-esteem does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: self-esteem adequately predicts depression, as measured by the *Beck Depression Inventory*, in lesbian women.

RQ2: do perceptions of discrimination, coming out, and self-esteem adequately predict anxiety in women, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women?

H_0: perceptions of discrimination do not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: perceptions of discrimination adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_0: coming out does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: coming out adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_0: self-esteem does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: self-esteem adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

For Research Question 1, the predictor variables are perceptions of discrimination, coming-out, and self-esteem levels, as assessed by the Information Survey, Schedule of Sexually Discriminatory Events (SSDE; House et al., 2011), and the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965). The dependent variable is depression, as assessed by the Beck Depression Inventory–II (BDI-II; Beck, Steer,

&Brown, 1996). The descriptive variables are gender, age, race/ethnicity, employment status, and income level, as assessed by the Information Survey.

For Research Question 2, the predictor variables are perceptions of discrimination, coming-out, and self-esteem levels, as assessed by the Information Survey, SSDE (House et al., 2011), and the RSE (Rosenberg, 1965). The dependent variable is anxiety, as assessed by the State Trait Anxiety Inventory for Adults (Spielberger et al., 1983). The descriptive variables are gender, age, race/ethnicity, employment status, and income level, as assessed by the Information Survey.

Theoretical Framework

A theoretical frame of reference may be used to explain the orientation of this study. The theoretical framework for this study is the minority stress model, which provides a basis for understanding the increased rates of psychological distress related to stigma, prejudice, and discrimination (Meyer, 2003). Within this model, minority stress is a unique type of stress that is based on social views and structures. The stress from this social perspective can lead to external and internal causes of stress-induced psychological distress (Meyer, 2003). For example, external causes the actual experiences of being rejected and discriminated against due to minority status, such as being lesbian and female. In this instance, the stigma is enacted. When the cause is internal, the person perceives rejection and expects to be discriminated against; this is a felt stigma. When a person hides or conceals (concealment) his or her identity as a sexual minority out of fear of harm, this also causes stress and psychological distress. According to the minority stress model, "social support, self-acceptance, and integration

of minority identity can ameliorate minority stress" (Meyer, 2003, p. 943). This framework has been used to help explain the impact of psychological distress and discrimination on minority populations and will be used to explain findings for the current study (Kelleher, 2009). A more complete discussion of this framework will be presented in Chapter 2.

Dentato (2012) reported that the minority stress model is "one of the most prominent theoretical and explanatory frameworks of sexual minority health risk" (p. 1). Dentato explained that minority stress as a concept describes, "a relationship between minority and dominant values and resultant conflict with the social environment experienced by minority group members" (p. 1). Thus, minority stress theorists posit that stressors explain disparities in sexual minority health from a hostile and homophobic society. This results in the experience of a lifetime of discrimination, harassment, maltreatment, and victimization (Dentato, 2012). Meyer's (2003) minority stress model helps explain the processes involved in minority stress for lesbian, gay, and bisexual populations and how this stress impacts health outcomes. According to Dentato, there are many overlapping concepts in this model, but the model describes the stress processes, noting experiences of prejudice and hiding and concealing, expectations of rejection, and the internalization of homophobia with ameliorative coping processes. The stress of sexual stigma and homophobia experienced in the environment demand that the individual adapt to these stressors, but this leads to stress and resulting negative physical and mental health outcomes. The concept of minority stress involves the assumption that stressors are unique and chronic in the stigmatized population, and non-

stigmatized populations do not experience these stressors. The assumption is that the stressors are socially based and are found in the social processes and structures. This theory can be applied to any minority population (Dentato, 2012).

Research using the minority stress model helps to confirm that minority stress has a negative impact on health (Denton, 2012). For example, Kelleher (2009) used this model to explore the impact of minority stress on health in LGBTQ young people. Kelleher also noted that stigma-related stress experienced by LGBTQ people results in negative health outcomes and psychological distress. To further study this phenomenon, Kelleher included a sample of 301 LGBTQ youths ages 16-24 years to study the impact of sexual identity distress, stigma consciousness, and heterosexist experiences. Findings were that this minority stress negatively impacted the well-being of these youths.

Denton (2012) investigated the impact of minority stress on the physical health of lesbians, gays, and bisexuals and determined the role of coping self-efficacy as a mediator of this stress impact. The study included 515 LGB-identified adult participants (222 women and 293 men). Web-based survey findings were that minority stress led to greater physical symptoms severity, and coping self-efficacy helped to mediate this relationship (Denton, 2012). The minority stress model can be used to understand the impact of coming-out, self-esteem, and perceived discrimination on depression and anxiety in lesbian women and will be used to address the research questions and hypotheses for the current study.

Nature of Study

The nature of this study is a quantitative survey design. The research design will be non-experimental and will include a cross sectional convenience sampling approach. A quantitative design yields a quantitative or numeric data that describes a sample of the population studied. For quantitative research designs, the procedure is established for the collection of data, data analysis, and reporting of results (Creswell, 2009). The qualitative and mixed designs were not chosen because the study's focus was not on gathering detailed information. Qualitative designs such as the phenomenological, case study, ethnographic design, or grounded research methodology allow the researcher to gather detailed information about the lived experiences of the study participants; conduct an evaluation of a specific location or case situation; learn about groups of people by becoming part of their world; or create a theory to explain a phenomenon (Creswell, 2009). However, because these were not the current study goals, these designs were not chosen. Instead, the quantitative survey research design was chosen because it allows for the collection of numerical data for statistical analysis and hypothesis testing.

Definition of Terms

*Anxiety***:** For the purpose of this study, anxiety is operationally defined as items on the State Trait Anxiety Inventory for Adults, where anxiety is measured in terms of degree of anxiety, instead of anxious or not anxious (Spielberger et al., 1983).

Biphobia: An aversion toward bisexuality and bisexual people as a social group or as individuals; people of any sexual orientation can experience such feelings of

aversion; this is a source of discrimination against bisexuals and may be based on negative bisexual stereotypes or irrational fear. (Fredriksen-Goldsen et al., 2013)

*Coming-out***:** For the purpose of this study, coming-out is operationally defined as the self-identification to others as a gay or lesbian, as reported on the Information Survey.

Depression: For the purpose of this study, depression is operationally defined as items assessed by the BDI-II where, like anxiety, depression is measured in terms of degrees of symptoms of depression, rather than as depressed or not depressed(Beck et al., 1996).

Homosexual: Of, relating to, or characterized by a tendency to direct sexual desire toward another of the same sex (Cochran, 2001).

Lesbian: A homosexual woman (Cochran, 2001).

Macrolevel: At or on a level that is large in scale or scope (Daguet & Maradan, 2008).

*Microlevel***:** At or on a level that is small in scale or scope (Daguet & Maradan, 2008).

Minority stress: Minority stress is defined as "the relationship between minority and dominant values and resultant conflict with the social environment experienced by minority group members" (Dentato, 2012, p. 1).

Mesolevel: At or on a level that rest in the middle in scale or scope (Daguet & Maradan. 2008).

Monosexism: A belief either exclusive heterosexuality and/or homosexuality is

superior to a bisexual or other non-monosexual orientation. (Bowleg, Huang, Brooks, Black, & Burkholder, 2003).

Perceptions of discrimination: For the purpose of this study, perceptions of discrimination are operationally defined as perceptions of being discriminated against due to being lesbian at any time or in any situation, as reported on the Information Survey and SSDE (House et al., 2011).

Self-esteem: For the purpose of this study, self-esteem is operationally defined as items assessed by the RSE, measured in terms of degrees where higher scores represent higher levels of self-esteem (Rosenberg, 1965).

Assumptions

For this study, it is assumed that the participants have experienced perceived prejudice and stigma associated with their minority lesbian status. Accuracy of self-reporting is assumed. These assumptions are necessary in the context of the study because accurate perceptions are needed to understand factors that predict depression and anxiety in the lesbian population. Additionally, the assumption of the linear multiple regression, including linearity, homoscedasticity, and normality, will be met.

Scope and Delimitations

The specific aspects of the research problem that are addressed in the study are whether factors of perceived discrimination, coming-out, and self-esteem predict depression and anxiety in the lesbian communities throughout the United States of America. This specific focus was chosen because there are mixed results regarding depression and anxiety outcomes in this population. Boundaries of the study include the

lesbian populations with the exclusion of other sexual minority populations and heterosexual populations. The theoretical framework of the minority stress model was chosen because this model helps explain how stress associated with being a lesbian may contribute to mental health outcomes. Theories of cognitive vulnerability, such as hopelessness theory (Abramson, Metalsky, & Alloy, 1989) and Beck's cognitive theory (Beck, 1987) were not used because these theories help explain depression and anxiety in general and do not consider specific issues related to minority stress (Hankin, Abramson, Miller, & Haeffel, 2004).

Delimitations for this study include the use of the RSE (Rosenberg, 1965), the BDI-II (Beck et al., 1996), and the State Trait Anxiety Inventory for Adults (Spielberger et al., 1983) for assessment of self-esteem, depression, and anxiety. Delimitations also include the use of the Information Form to gather data regarding coming-out and perceptions of discrimination, findings that may or may not reflect all aspects of self-esteem, depression, anxiety, coming-out, or perceptions of discrimination.

Limitations

Study limitations are related to the research design. This quantitative study will not allow for the gathering of detailed information. However, this design does allow for the gathering of numerical data for statistical analysis and hypothesis testing. Because variables will not be directly manipulated and results will be observed from existing groups, findings will be descriptive. The quality of the study will be dependent on threats to external, internal, and construct validity. Additional study limitations are related to the sample selected for this study, which will be from an available volunteer

population. Because the convenience sample of subjects will represent the lesbian population, from the United States of America, the results of this research may not generalize to other countries lesbian populations. Because the sample will consist of volunteers, findings may not be generalizable to all lesbian populations in other geographical locations, which limit the external validity of the study. Characteristics such as race, age, and so on will be assessed to help deal with confounding variables. Effects of testing which might limit study findings will be dealt with by using identification numbers instead of names to ensure confidentiality and anonymity of the participant. Threats to construct validity will be controlled by the use of the minority stress theory, which is connected to the variables and topic studied. A bias that could influence study outcomes includes researcher interpretations, which will be overcome by the use of numerical data that are less subject to interpretation compared to qualitative data.

Significance

This study may contribute to filling a gap in the literature and the findings that are mixed with regard to mental health issues and related predictors in the lesbian population. Study findings will advance the knowledge of the discipline because the predictive ability of perceptions of discrimination, coming-out, and self-esteem levels with regard to depression and anxiety will be determined. Findings will advance knowledge in the discipline and advance practice and policy by studying lesbian experiences specifically. This research may support professional practice and allow practical application because it will provide information about the need to focus on

issues of discrimination, coming-out, and self-esteem to help the lesbian community deal with depression and anxiety. This information is relevant to society and has potential implications that may lead to positive social changes by helping to increase self-esteem and coming-out and decrease the negative impact of discrimination leading to depression and anxiety problems in the lesbian community.

Summary

In this chapter, I presented an introduction to the study followed by a discussion of the problem and problem statement, study purpose, theoretical context, study importance, research questions and hypotheses, nature of the study, definitions of terms, and study limitations, delimitations, and assumptions. Chapter 2 will present a review of the literature to provide support for the study. Chapter 3 will present the methodology used in the study to include an introduction, research design procedures, and data processing and analysis. The fourth and fifth chapters will present study results and a discussion of findings with conclusions and recommendations.

Chapter 2: Literature Review

Introduction

It is difficult to determine the number of lesbians who suffer from mental and physical health problems due to their minority status (Dentato, 2012; Denton, 2012; Kelleher, 2009). Dentato (2012) reported that minority stress refers to "the relationship between minority and dominant values and resultant conflict with the social environment experienced by minority group members" (p. 1). Stress associated with sexual orientation minority status includes perceptions of stigma, prejudice, rejection, heteronormativity, and internalized homophobia that impact health outcomes. These unique stressors experienced by minority groups are related to health outcomes and physical and mental health problems (Dentato, 2012; Denton, 2012; Kelleher, 2009). The prevalence of discriminatory practices in legislation can be a contributing factor for mental health ineffectiveness in helping the LGBTQ community. If individuals are unable to self-identify with their lifestyle for fear of ostracism, reporting will be difficult; instead of studying groups in isolation, the numbers are combined (i.e., lesbians, gay, bisexual, and transgender).

The findings are mixed with regard to understanding mental health issues within the lesbian community; these are some of the primary challenges being confronted by researchers (House et al., 2011). While some researchers have provided evidence that lesbians, gays, and bisexuals suffer from mental and physical health problems due to their minority status and minority stress (Dentato, 2012; Denton, 2012; Kelleher, 2009), other scholars have indicated that lesbians are similar in mental health compared to

heterosexual sisters and have higher self-esteem (Rothblum & Factor, 2001). Lesbians have demonstrated positive mental health outcomes if they disclose their sexual identity to others (DeAngelis, 2002; Legate et al., 2012; Patterson & D'Augelli, 2013). Additional research is needed to explore factors that are related to lesbian depression and anxiety (Meyer, 2003). The purpose of this quantitative research study is to determine if perceptions of discrimination, coming-out, and self-esteem levels are associated with depression and anxiety. In the following sections, I present the literature search strategy; theoretical foundation; and a synopsis of the current literature regarding lesbian experience, sexual minority status and mental health, physical health, stigma, discrimination, and self-esteem, and coming out. This is followed by a summary and conclusions.

Literature Search Strategy

The literature search strategy included gathering peer-reviewed articles from primarily the last 5 years in databases such as ProQuest, PsycINFO, PsycARTICLE, and Taylor and Fancis Online. Key words used for the search included *depression*, *anxiety*, *health*, *mental health*, *stigma*, *discrimination*, *coming out*, *self-esteem*, and *lesbian*. The scope of literature review included an initial search with dates from 2010 onward, followed by a search of all years to further explore the issues examined using the minority stress model (Meyer, 2003).

Theoretical Foundation

The theoretical foundation for this study is based on the minority stress model, conceptualized by Meyer (2003), which provides an understanding of the increased rates

of psychological distress related to stigma, prejudice, and discrimination. According to the minority stress model, minority stress is a unique type of stress based on social views and structures that potentially leads to psychological distress, such as depression and anxiety (Meyer, 2003). Meyer's model has been used to explore minority stress in sexual minorities (Bruce, Ramirez-Valles, & Campbell, 2008; Meyer, 2003). Meyer developed this model based on the stress model presented by Dohrenwend (1998, 2000). Dohrenwend presented a model that described the stress process noting the strengths and vulnerabilities of the environment and the individual. Meyer's adaption of Dohrenwend's stress model included only the elements of the stress process that was unique to minority stress; however, Meyer also noted the importance of considering the elements omitted from the stress model, which included the strengths and weaknesses of the environment and the individual. Dohrenwend (2000) proposed that the likelihood of onset of major depression, posttraumatic stress disorder (PTSD), substance use disorders, antisocial personality disorder, and nonspecific distress increases with "(1) the proportion of the individual's usual activities in which uncontrollable negative changes take place following a major negative event; and (2) how central the uncontrollable changes are to the individual's important goals and values" (p. 1). For Dohrenwend, environmental adversity outcomes vary by gender, ethnic/racial status, and socioeconomic status. The development of the psychopathology is based on the type of adversity a person encounters, as well as the individual's personal predisposition. Figure 1 presents the minority stress model used for the current study.

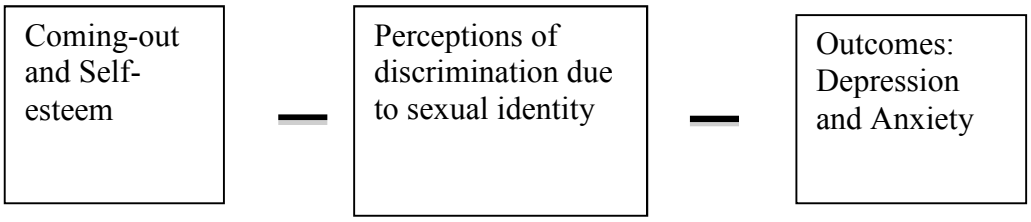

Figure 1. Minority stress model

Bruce et al. (2008) used the minority stress model as a theoretical framework to explore the relationship between stigmatization, substance use, and sexual risk behavior. The population studied included gay and bisexual men and transgender persons. Specifically, the link between racial and homosexual stigma and the outcome variables was studied in Latino gay and bisexual men and male-to-female transgender persons (GBT; $N = 643$). The study took place in Chicago and San Francisco. The effects of different stigmas and factors of perception, experience, and internalization were statistically analyzed with confirmatory factor analysis. Perceived stigma included scale items such as "Many people believe that homosexuality is a character flaw" (Bruce et al., 2008, p. 240). Experienced stigma included scale items such as "How often has a friend rejected you because of your sexual orientation?" and internalization of stigma-included scale items such as "Sometimes I wish I were not gay" (Bruce et al., 2008, p. 240). Bruce et al. revealed adequate fit of the three racial stigma dimensions "with acceptable CFI and TLI (CFI = .938, TLI = .971) and an RMSEA approaching acceptability (RMSEA = .076). Similarly, there was adequate fit of the three homosexual stigma dimensions (CFI = .937, TLI = .973, RMSEA= .094)" (p. 240). There were significant and distinct pathways to the outcome of sexual risk. The

experience of homosexual stigma and the internalization of racial stigma with multiple drug use led to sexual risk. In addition, the experience of racial stigma and the internalization of homosexual stigma with alcohol use also led to sexual risk. While the lesbian population was not specifically studied, use of the minority stress model helped to explain that stress associated with minority sexual identity was related to negative outcomes.

Bockting et al. (2013) also used the minority stress model as a theoretical framework in the study of stigma and mental health. An online sample of the U.S. transgender population was included in the study. Specifically, Bockting et al. investigated the relationship between minority stress and mental health and potential ameliorating factors of resilience (family support, peer support, identity pride). The sample included 1,093 male-to- female and female-to-male transgender persons who completed an online survey that assessed mental health and other factors. Bockting et al. found that participants reported a high prevalence of clinical depression, anxiety, and somatization. Hierarchical regression was used to test for associations, and social stigma was significantly and positively related to psychological distress ($p < .001$). However, peer support from other transgender people moderated the relationship, indicating that more support from transgendered people was associated with less psychological stress related to social stigma. Bockting et al. stated, "the association between enacted stigma and psychological distress was significant for low ($B = 0.243$; $P < .001$) and moderate ($B = 0.206$; $P < .001$) but not for high ($B = -0.036$) peer support" (p. 946). Differences in depression, anxiety, and somatization outcomes based on male and female perspectives

were few, and the authors concluded that results supported the minority stress model. Bockting et al. also concluded that prevention of psychological distress due to minority stress must confront social structures, norms, and attitudes that lead to minority stress for minority populations. Further, prevention services must improve access to programs that promote resilience and peer support.

The minority stress model was chosen for this study because it helps to explain the impacts of the unique stress related to minority sexual identity. Meyer (2003) presented the use of this theory to explain findings of a higher prevalence of mental health disorders in LGBs compared to heterosexuals. This model is appropriate for the current study of whether perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in lesbians.

Literature Review Related to Key Variables

In the following section, I provide a review of the current research related to the study constructs. The topics presented are consistent with the study variables of lesbian identity and mental health outcomes, with consideration for factors of stigma, discrimination, self-esteem, and coming out. This discussion is followed by a summary and conclusions.

The Lesbian Experience

Morris and Balsam (2003) explored the experiences of victimization of both lesbian and bisexual women. Specifically, Morris and Balsam examined the prevalence and correlates of victimization among a sample of 2,431 ethnically diverse LBG women from every state in the United States. The Lesbian Wellness Survey was used to gather

data. Morris and Balsam found that most participants (62.3%) reported their experience of victimization due to their LBG status. Fewer (30.8%) reported having been beaten or physically abused as a child, 39.3% experienced sexual victimization prior to age 16, 36.2% experienced sexual abuse after age 16, and 21.2% reported experiencing physical abuse as an adult. The most common experience of this group was anti-LBG verbal harassment. Each of these experiences was significantly related to their current experience of psychological distress, and the increased numbers of types of victimization was related to significantly greater psychological distress. Childhood victimization was related to adult re-victimization. Participants also reported being victimized due to race; Native American participants reported the highest rates of victimization, followed by Latinas, Blacks, Asian Americans, and Whites. While this was a large study, it involved a convenience sample; these findings may not categorize all of the lesbian populations. However, lesbians experience multiple forms of victimization that lead to psychological distress.

In a qualitative study, Bowleg et al. (2003) explored the experiences of 19 middle class and highly educated Black lesbians. Participants ranged in age from 26- to 68-years old. Semi structured interviews were used to gather data for analysis. Bowleg et al. used the multicultural model of stress and the transactional model of resilience to investigate these experiences. Most participants (79%) reported racism to be a significant, a mundane stressor. Sexism and heterosexism experiences were felt within the stress of racism. This group of lesbians supported the "triple jeopardy" experience in that they experienced stress from being female, Black, and lesbian. For these Black

women, race, sex, and sexual identity were interlinked. Bowleg et al. also found that these women were resilient. However, study limitations included small sample size and the sample being from women attending a retreat to celebrate Black lesbians, which may have led to the gathering of more resilient women. Thus, findings may not generalize to other Black lesbians.

The lesbian identity can be considered from the social-psychological point of view and current and life-course identity models, which help characterize the everyday lived experience of those with lesbian identity (Tate, 2012).Discrimination has been woven into the fabric of U.S. society. The Women's Suffrage Movement of the late 19th and early 20th \centuries was an indication that change was necessary in in the United States, culminating in the 1920s with the passage of the 19th amendment to the U.S. Constitution; this legislation gave women the right to vote (Harper, 1913). However, in 1973, political pressure allowed for the changes that would alter the public's perception of homosexuality by removing the stigma of it being a psychological disorder (American Psychiatric Association, 1973, 2013).

There has been research conducted on the LGBTQ community; nevertheless, additional study is necessary in the area of discrimination in relation to mental health because many within this community feel ostracized and unfairly treated, actions that have been supported by state law and policies imposed by many institutions of higher education (Patton & Simmons, 2008). Researchers have mainly focused on predominately White institutions (PWI), which have not been able to explain the prejudices found in historically Black colleges and university campuses (HBCUs; Patton

& Simmons, 2008). The experiences that lesbians encounter on HBCU campuses are different than what lesbians have had to cope with on PWI campuses because racism, sexism, and self-perception, which Patton and Simmons (2008) explained as the exploration of complexities of multiple identities.

Because of religion, the topic of homosexuality is sensitive, especially on Black campuses where members of the LGBTQ community may feel marginalized and unsupported (Patton & Simmons, 2008). In matriculation from high school to college, LGBTQ students have to navigate their sexual identity; this can be challenging when having to reveal aspects of identity to family and friends, who may know them as heterosexual (Evans & Wall, 1991; Patton & Simmons, 2008). In addition, the manifestation of multiple identities has affected Black women because many are forced to live multiple lives; their lesbian identity must be held in secret. College institutions may not be prepared to deal with LGBTQ issues given the foundation of many of the institutions. Victimization based on discrimination has been the cause of many self-imposed roadblocks.

Unlike their White counterparts, it may be difficult to find a neighborhood or community that will openly accept lesbians because of U.S. constructs concerning homosexuality (Patton & Simmons, 2008). Not all lesbians experience the same struggles; some Black lesbians who attend Black campuses may experience increased discrimination due to their sexual identities because of the impact of the Black church and its doctrine, in regards to homosexuality. Black lesbians in such an environment may experience triple jeopardy, which defines the difficulty of coping with multiple

forms of oppression (Loiancano, 1989). There is no one kind of lesbian or lesbian experience; thus, there is a need for continued study on the effects of various types of environmental pressures on lesbian life.

The climate on the HBCU campuses for the LGBTQ plays a role in the psychosocial development because of the pervasiveness of homophobia and heterosexism (Patton & Simmons, 2008). The college communities' policies are similar to the U.S. Military's earlier policies regarding homosexuality, which was "Don't ask, don't tell." While some individuals may lesbianism, any openness or demonstration of affection towards same-sex relationships are viewed negatively.

Sexual Minority Status and Mental Health

Sexual minority status is related to mental health issues such as depression and anxiety. For example, Duncan and Hatzenbuehler (2014) examined the impact of hate crimes and suicidality in a sample of sexual minority adolescents in Boston. The sample represented LGBT populations and included 1,292 ninth through 12thgrade public school students. Of this group, 108 (8.36%) reported a minority sexual orientation. Data from the police department regarding LGBTQ hate crimes linked to the participant's residential address were obtained. According to study findings, sexual minority youths who lived in neighborhoods with higher rates of LGBTQ assault hate crimes were more likely to report suicidal ideation and suicide attempts compared to those living in neighborhoods with lower LGBTQ assault hate crime rates. Because there were no relationships between general neighborhood level violent and property crimes and suicidality, findings were related specifically to LGBTQ assault hate crimes. Study

limitations included the use of a small local sample of public high school students, which may have limited the ability of findings to be generalized to other locations or populations of sexual minority adolescents. The use of a cross-sectional study also limited findings. Data on LGBTQ hate crimes were further limited, and findings may have been based on conservative estimates. However, the neighborhood context of LGBTQ hate crimes, as a minority stress, contributed to outcomes of suicidality in adolescents with a sexual minority status.

Gevonden et al. (2014) used the minority stress model to examine sexual minority status and related psychotic symptoms. A cross-sectional survey was used to assess psychotic symptoms in two separate random general population samples of participants who were sexually active aged 18-64 years (n = 5927, n = 5308). Participants were self-identified as being LGB. Lifetime experience of a psychotic symptom was analyzed and adjusted for factors of gender, urbanity, foreign-born parents, educational level, living without a partner, cannabis use, and other drug use. Gevonden et al. found that rates of psychotic symptom were increased in the LGB population compared with rates of the heterosexual population in both samples. The limitations on the study were cross-sectional; an approach was used which did not conclusively show the direction of the relationship between sexual minority status and psychotic symptoms. The accuracy of reporting limited findings and same-sex behavior and attraction may have been under-reported. Despite limitations, the minority stress model illustrated that LGB orientation, with exposure to minority stress, is linked with psychotic symptoms.

Stone, Luo, Ouyang, Lippy, Hertz, and Crosby (2014) explored sexual orientation and suicide ideation, suicide plans, suicide attempts, and medically serious suicide attempts. Stone et al. examined data from local youth risk behavior surveys taken from 2001 to 2009. The relationship between sexual orientation and suicide risk outcomes was identified. For this study, sexual minority youths (SMYs) were defined by a sexual identity of LGB and sexual contacts (same- or both-sex). Stone et al. reported that all SMYs had significantly increased odds of reporting suicide ideation, with the ORs ranging from 1.56 (95% *CI* = 1.09, 2.21); bisexual youths, gay males, and both-sex contact females had the greatest odds of suicide planning. Most SMY subgroups had increased odds of all suicide outcomes assessed. Stone et al. stated,

> LGB and unsure youths had significantly increased odds of all SROs compared with heterosexual peers, with the ORs ranging from between 2.02 (95% CI = 1.03, 3.96) for MSAs among unsure females to 5.11 (95% CI = 3.16, 8.25) for planning among bisexual males. (p. 268)

LGB youths had significantly increased odds of each suicide risk outcome, except lesbians did not have increased odds of planning and gay males did not have increased odds of attempted suicide that resulted in injury, poisoning, or an overdose needing medical treatment compared with heterosexuals.

The study limitations were that only two measures of sexual orientation were used and it was not clear which was a better marker of suicide risk (Stone et al., 2014). For example, while some researchers have reported that sexual identity is a better predictor of risk, others have proposed that sexual attraction or behavior is the better

predictor. Another limitation of Stone et al.'s study was that social factors, such as school and community climate or connectedness, were not controlled and these could potentially influence outcomes. Risk factors, such as the experience of being threatened were also not controlled or measured. The results were also subject to bias in self-reports, which could impact outcomes. However, despite these weaknesses, the study did provide an analysis of sexual identity as it relates to increased risk for (Stone et al., 2014).

Burton, Marshal, Chisolm, Sucato, and Friedman (2013) explored sexual minority-related victimization as it relates to mental health disparities in SMY. For this study, a longitudinal analysis was conducted with SMY, defined as those attracted to the same sex or those who endorse a gay/lesbian/bisexual identity. Burton et al. noted that these youths reported significantly higher rates of depression and suicidality compared to heterosexual youth. In accordance with the minority stress hypothesis, it was the stigma and discrimination experienced by these SMY that created a hostile social environment; this leads to chronic stress and related mental health problems. For their study, Burton et al. included 197 adolescents ages 14 to 19 years; of this group, 70% were female and 29% were self-reported as a sexual minority. Assessments of sexual minority-specific victimization, depressive symptoms, and suicidality were conducted twice, 6 months apart. Burton et al. reported that SMY reported statistically significantly higher levels of sexual minority-specific victimization ($p < .05$), depressive symptoms ($p = .001$), and suicidality ($p = .001$) compared to heterosexual youth. In sexual minority-specific victimization had a significant influence on the relationship

between sexual minority status and depressive symptoms and suicidality (*B* = .045, 95 % *CI*: .0063, .15). The study was limited by the sample size, but the minority stress hypothesis was supported because targeted harassment and victimization influenced higher levels of depressive symptoms and suicidality in SMY. Public policy initiatives are needed to decrease bullying and hate crimes because victimization significantly impacts the health and well-being of SMY.

Choi et al. (2013) studied the discrimination experiences and mental health outcomes of Blacks, Asian and Pacific Islanders (API), and Latino men who reported having sex with men (MSM). For this study, Choi et al. investigated links between different types and sources of discrimination, including mental health outcomes. Chain-referral sampling was used to gather a sample of 403 Blacks, 393 APIs, and 400 Latino MSM from Los Angeles County, California. Data were from a standardized questionnaire used in the Ethnic Minority Men's Health Study that took place from May 2008 to October 2009. Choi et al. found that more past year experiences of general community racism and perceived homophobia among heterosexual friends was more positively and significantly related to anxiety and depression. These statistically significant findings were not affected by race or ethnicity. However, the positive link between perceived racism by the gay community with anxiety was only statistically significant for APIs, and while the link was found for other groups, it was not statistically significant. Perceptions of family homophobia were not related to anxiety or depression. Discrimination was related to psychological distress and negative mental health outcomes for Black, API, and Latino MSM, implying that being discriminated

against due to sexual identity was a factor in poor mental health outcomes for all groups studied.

Choi et al. (2013) presented important findings, but there were limitations in the study. For example, participants were from Los Angeles County, which only may limit the generalizability of outcomes (Choi et al., 2013). In addition, the sample was overrepresented by men who were HIV positive, which may impact outcomes. The use of self-report measures may have included bias, which impacted outcomes. Because the study was cross-sectional rather than longitudinal, the understanding of the effects of experienced discrimination on mental health outcomes is limited. However, the link between sexual identity status and poor mental health outcomes was supported because a link between discrimination due to sexual identity and poor mental health outcomes was found.

Collier, Bos, and Sandfort (2013) studied the impacts of homophobic name-calling on mental health in secondary school students. Collier et al. noted that while the negative impact of homophobic verbal victimization on mental health outcomes has been studied and supported, there is a lack of understanding of the prevalence of this situation or the relationship to the mental health of adolescents. Collier et al. examined this relationship in adolescents and accounted for sexual orientation and level of gender nonconformity. Data were from surveys of 513 adolescents, ages 11 to 17 years, who attended eight schools in and around Amsterdam, the Netherlands. Of this group, 56.7% were female and 11.1% reported same-sex attractions.

Collier et al. (2013) reported findings from a regression analysis that male adolescents and those with same-sex attractions reported significantly more victimization from homophobic name-calling, compared to female and non-same-sex attracted peers ($p < .05$). Contrary to their expectations, Collier et al. found that homophobic name-calling was not independently related to psychological distress when gender, sexual attractions, gender nonconformity, and other negative treatment by peers were controlled. Collier et al. were also unable to support their hypothesis that homophobic name-calling would be more strongly related to psychological distress in males; same-sex attracted, and gender nonconforming adolescents. These findings were subject to study limitations. For example, while the sample was large, the numbers of participants experiencing homophobic name-calling was smaller. The use of self-reports and a local sample may also have impacted findings. However, same-sex attracted and gender nonconforming youth were particularly impacted by homophobic name-calling, but other forms of peer victimization may be even more strongly related to negative mental health in this population.

Zietsch et al. (2012) studied the influences of shared etiological factors on the relationship between sexual orientation and depression. Zietsch et al. noted that gays, lesbians, and bisexuals are at a greater risk for psychiatric symptoms and disorders such as depression. This outcome may be due to the prejudice and discrimination experienced, but there may be other mechanisms that also played a role. Thus, Zietsch et al. studied the factor of a shared genetic or environmental etiology in a community-based sample of adult twins. A sample of 9,884 individuals completed surveys about

depression and sexual orientation. In addition, there were sample subsets that were assessed for adverse childhood experiences (sexual and physical abuse and risky family environment), numbers of siblings, paternal and maternal age, and numbers of close friends. A classical twin design was used to analyze data.

Zietsch et al. (2012) reported findings from a correlation analysis that non-heterosexual males and females reported higher rates of lifetime depression compared to heterosexual counterparts ($p < .001$). Genetic factors accounted for 60% of the correlation between sexual orientation and depression. Childhood sexual abuse and risky family environment significantly predicted sexual orientation and depression. The twin design may have limited the understanding of findings. For example, non-additive genetic effects may have canceled out or masked other effects, and all factors that may have impacted outcomes were not studied. Measurements of adverse childhood experiences, which may have been limited by bias and inaccuracy of reporting, were not assessed. However, while causality was not shown, non-heterosexual men and women had elevated rates of lifetime depression and this was in part due to shared etiological factors. Thus, there is a relationship between sexual minority status and outcomes such as anxiety and depression.

Lesbian Status and Mental Health

Lesbians may report psychological distress related to perceptions of being discriminated against due to their sexual minority status, which may be exacerbated by the perception of being discriminated against due to ethnic and racial minority status. For example, Szymanski and Meyer (2008) explored factors of racism and heterosexism

as they related to psychological distress in a sample of 91 Black sexual minority females, of whom (85%) were self-identified as lesbian, 11% were self-identified as bisexual, and 4% were self-identified as not sure. For their study, Szymanski and Meyer used the Individual Racism subscale of the Index of Race-Related Stress to assess racism; the Heterosexist Harassment, Rejection, and Discrimination Scale to assess heterosexist events; the racist subscale of the Nadanolitization Scale to assess internalized racism; a short form of the Lesbian Internalized Homophobia Scale to assess internalized heterosexism; and the Hopkins Symptom Checklist to assess psychological distress.

Szymanski and Meyer (2008) found that racist and heterosexist events, as well as internalized heterosexism, were positively related to psychological distress, but it was racist events and internalized heterosexism that accounted for the unique variance. Internalized racism, as well as the interaction between racist events and heterosexist events and the interaction between internalized racism and internalized heterosexism, were not predictors of psychological distress. Factors that led to outcomes of psychological distress were complex. While the study was limited by a small sample, response rate, and the use of self-report measures, Szymanski and Meyer concluded that greater frequencies, as well as severity of racist and heterosexist events with increased internalized heterosexism, were factors related to increased levels of psychological distress in Black sexual minority females. Szymanski and Meyer pointed out the inconsistency with previous research results; a relationship between internalized racism and mental health in this Black lesbian and bisexual women's population was not found.

It was only racist events and internalized heterosexism that predicted mental health outcomes. Those who experience multiple forms of oppression are more likely to experience psychological distress. However, findings may also be due to a tendency for sexual minority individuals to view the Black community as mainly heterosexist and anti-LGB. It may be that Black sexual minority individuals may not have needed support from the Black heterosexual community regarding lesbian identities. While reasons for findings are speculative, Szymanski and Meyer provided information about the relationship between internalized racism and mental health in lesbian populations, and there are factors that may mediate this relationship.

Sexual Minority Status and Positive Mental Health Outcomes

While there are many researchers who support the relationship between sexual minority status and psychological distress such as anxiety and depression, alternate results have also been shown (House et al., 2011; Szymanski & Meyer, 2008). Szymanski and Meyer (2008) reported the nonexistence of a relationship between internalized racism and mental health in Black lesbians. House et al. (2011) reported that there are additional factors involved that lead to poor mental health outcomes for gay, lesbian, bisexual, and transgender (GLBT) persons. These people may be at a greater risk for mental health problems, compared to heterosexuals, according to House et al.; there are factors such as discriminatory events, interpersonal violence, and victimization that predict psychological distress. For their study, House et al. included 1,126 self-identified GLBT participants. Each completed an Internet-based survey. The experiences of interpersonal trauma and sexual discrimination were related to increased

likelihoods of engaging in suicidal and non\suicidal self-injury. High levels of both interpersonal trauma and sexual discrimination were predictors of the greatest levels of psychological distress.

Another study with alternative findings regarding the mental health outcomes for lesbians provided by Rothblum and Factor (2001) who compared mental health outcomes between lesbians and their heterosexual sisters. Rothblum and Factor also showed that lesbians reported higher levels of self-esteem. Lesbian mental health studies tend not to include the use of a control group to compare results, and they tend to rely on statistics about women in general for comparisons. Rothblum and Factor also reported that these studies tend to include convenience samples and self-reported data, which are also limited because samples tend to include individuals with higher degrees of education and lower incomes compared to the general population. Lesbians included in studies might not represent the entire lesbian population. Thus, for their study, Rothblum and Factor compared lesbians and their heterosexual sisters with consideration for demographic variables and mental health subscales. Rothblum and Factor requested 1,264 questionnaires by telephone, mail, or e-mail and 762 surveys were returned for analysis. Most respondents ranged in age from 20- to 40-years-old and most were of White decent. The lesbians were more educated to a significant degree, and they were also more likely to live in urban areas. Finally, lesbians were found to be more geographically mobile compared to their heterosexual sisters. Alternatively, heterosexual sisters were more likely to be married with children, to be homemakers, and to identify with a formal religion. Not consistent with previous

research, Rothblum and Factor found that there was no difference in mental health between the two populations, and lesbians reported higher levels of self-esteem. An interesting finding was that bisexual females significantly poorer mental health compared to lesbians and heterosexual women.

DeAngelis (2002) explored the notion that lesbians may not always report psychological distress outcomes, and lesbians have demonstrated positive mental health outcomes if their sexual identity has been disclosed to others. According to DeAngelis, key findings of research studies are that gay men, lesbians, and bisexuals have higher rates of some mental disorders compared to rates for heterosexuals, and discrimination is a factor in these rates; alternatively, gay and lesbian youths are only slightly more likely to attempt suicide compared to heterosexual youths. Lesbians are similar in mental health when compared to their heterosexual sisters, and they have higher self-esteem (Rothblum & Factor, 2001). Thus, there is a need for additional studies focused on LGB populations.

As explained by DeAngelis (2002), there are large population-based public health studies on higher rates of major depression and generalized anxiety disorder as well as substance use or dependence in lesbian and gay youths. In these population-based studies, scholars have also shown that gay men have higher rates of recurrent major depression, and same-sex partners have higher rates of anxiety, suicidal thoughts, and mood and substance use disorders. However, this information was from the use of general surveys, and the same surveys also examined HIV-risk factors as well as sexual behavior and psychiatric problems. Thus, due to the difficulty in finding large samples

of sexual minority individuals, data were derived from samples of individuals who suffered from other issues such as HIV. Discrimination is another factor involved in the relationship between sexual minority status and mental health outcomes. According to large public health surveys, LGB respondents report higher rates of perceived discrimination when compared to heterosexuals. However, in large-scale studies of lesbians and bisexual women, researchers have reported alternative findings when women are "out," and this is linked to more positive mental health outcomes and higher self-esteem. In fact, lesbians have reported similar rates of mental health compared to their heterosexual sisters, and they have reported higher levels of self-esteem. Conflicting findings have been shown, and these findings may be due to intervening factors or methodological differences in studies.

The impact of minority stress on poor mental health outcomes has been demonstrated and alternative findings have also been shown. For example, Duncan and Hatzenbuehler (2014) demonstrated the impact of hate crimes on suicidality in sexual-minority adolescents, and Gevonden et al. (2014) showed that minority status is related to psychotic symptoms in LGB individuals. Stone et al. (2014) and Burton et al. (2013) found that sexual minority status was related to depression, suicide ideation, suicide plans, suicide attempts, and medically serious suicide attempts. These outcomes are found across racial and ethnic groups (Choi et al., 2013). Collier et al. (2013) reported that same-sex attracted and gender nonconforming youth were negatively impacted by homophobic name-calling. Shared etiological or genetic factors, childhood sexual abuse,

and risky family environment influence the relationship between sexual orientation and depression (Zietsch et al., 2012).

Lesbians might report psychological distress related to perceptions of being discriminated against due to their ethnic and racial and sexual identity minority status (Szymanski & Meyer, 2008). However, Szymanski and Meyer (2008) reported that while there was a relationship between psychological distress and racist and heterosexist events, as well as internalized heterosexism, it was racist events and internalized heterosexism that accounted for this relationship. There was no relationship found between internalized racism and mental health in Black lesbian and bisexual female populations. Thus, researchers presented conflicting findings (House et al., 2011; Szymanski & Meyer, 2008). House et al. (2011) explained that there are factors such as interpersonal trauma and sexual discrimination that predict psychological distress. Rothblum and Factor (2001) noted further that lesbians and their heterosexual sisters reported similar mental health outcomes, and lesbians reported higher levels of self-esteem. DeAngelis (2002) provided an explanation for conflicting findings and noted that these may be due to mediating factors not explored and methodological differences in studies. There is a need to further explore factors that influence the relationship between sexual minority status and depression and anxiety. The experience of lesbians helps to understand factors that might influence mental health outcomes of this population.

Sexual Minority Status and Physical Health

Sexual minority status is related to physical health. Lindley, Walsemann, and Carter (2012) studied the relationship between sexual orientation and health-related outcomes. Specifically, Lindley et al. studied links between sexual orientation (identity, behavior, and attraction) and health-related indicators of perceived stress, victimization, depressive symptoms, smoking, and binge drinking. Data were from the National Longitudinal Study of Adolescent Health, Wave IV that took place from 2007 to 2008. Data were from 14,412 respondents aged 24 to 32 years old. According to multivariate linear and logistic regressions, outcomes differed by gender and sexual orientation measures. For females, being attracted to both male and female, being "mostly straight" or bisexual, and having primarily opposite-sex sexual partners was significantly related to increased risk for all factors studied. For males, sexual attraction was not related to health indicators, and men with same sex or both sexes sexual partners were at significantly decreased risk for binge drinking.

Lindley et al. (2012) noted that study limitations included a sample that represented those attending Grades 7 through 12 in 1994-1995 only. In addition, the study was limited by the use of a restricted measure of attraction and victimization. Measurement errors may have been present and unaccounted for. However, Lindley et al. implied the importance of using multiple dimensions of sexual orientation in order to understand the link between sexual orientation and health for young adults.

Thomeer (2013) studied sexual minority status and health with a focus on the influence of age, sex, and socioeconomic status. Data for the study were from the 1991

to 2010 General Social Survey that included a population of 13,480. Findings from multinomial logistic regression were that those with only different-sex partners or with any same-sex partners reported similar levels of health. Socioeconomic status impacted outcomes. Those with any same-sex partners reported worse health compared to those with only different-sex partners if sexual intercourse with same-sex partners occurred in the last 5 years. Age and sex were moderating factors; having any same-sex partners was related to worse health for females and for younger adults only.

Thomeer (2013) reported study limitations. Small sample sizes led to pooled data collection for 19 years of data, and during this time, there may have been social, political, and cultural changes that took place and were not accounted for. Findings were also limited by a measure of sexual minority status, which assessed sexual behavior and may have been influenced by bias and a lack of accurate recall. Thomeer concluded that the relationship between sexual minority status and self-rated health is subject to variation due to socioeconomic status because findings varied across socio-demographic groups.

Fredriksen-Goldsen et al. (2013) studied health differences among the older adult (50+ years) populations of LGBs. Data were from the 2003-2010 Washington State Behavioral Risk Factor Surveillance System and included 96,992 respondents. Issues of chronic conditions, behaviors, care access, screening, and health outcomes were examined by gender and sexual orientation. According to logistic regressions, these LGB older adults had a higher risk for poor mental health, disability, smoking, and excessive drinking compared to heterosexuals; whether these findings were statistically

significant was not clear. Fredriksen-Goldsen et al. also reported that of the LGB group, lesbians and bisexual women had a higher risk of cardiovascular disease and obesity; gay and bisexual men had a higher risk of poor physical health and living alone; lesbians had a higher rate of excessive drinking, compared to bisexual women; and bisexual men had a higher rate of diabetes and a lower rate of being tested for HIV, compared to gay men. While Fredriksen-Goldsen et al. reported these findings as results, the significance for each result was less clear. Fredriksen-Goldsen et al. stated,

> While Lesbians and bisexual women had greater adjusted odds of obesity (AOR = 1.42) relative to heterosexual women ... lesbians and bisexual women had significantly greater risk (AOR = 1.37) ...the adjusted odds of diabetes were significantly higher for bisexual men (19.74%) than for gay men (9.50%; AOR = 2.33; $P< .01$). (p. 1805)

Fredriksen-Goldsen et al. (2013) reported study limitations that included the use of a cross-sectional study with existing data, which did not allow for an examination of temporal relationships between variables. Findings were from self-reports, which may have presented bias and inaccuracy. Data were from one state, and findings may not generalize to other locations. The data were also limited by self-disclosure of sexual identity in the older population because they might "be less likely than younger age groups to identify themselves as a sexual minority in a telephone-based survey" (Fredriksen-Goldsen et al., 2013, p. 1807). Despite these limitations, Fredriksen-Goldsen et al. concluded that there are health disparities among the older LGB population and tailored interventions are needed to address the needs of this group.

Coulter, Kenst, Bowen, and Scout (2014) explored health topics related to LGBT populations to determine what types of research have been conducted. Data were from studies funded by the National Institutes of Health (NIH). LGBT-related data from 1989 to 2011 were included from 113 studies, which focused on sexual minority men (86.1%), sexual minority women (13.5%), and transgender populations (6.8%). According to study findings, 79.1% of these researchers focused on HIV/AIDS, 30.9% focused on illicit drug use, 23.2% focused on mental health, 16.4% focused on other sexual health issues, and 12.9% focused on alcohol use. While there were limitations to the study such as a possible underestimate of reports, Coulter et al. reported that while the numbers of studies increased over time, there is an overall lack of NIH-funded research concerning LGBT health, and this leads to health inequities. Coulter et al. concluded that more studies are needed to understand the unique mechanisms involved in improving health and reducing in equities in these populations.

Populations with minority sexual identities report mental and physical health issues. Lindley et al. (2012) studied the relationship between sexual orientation and health-related outcomes and found that there are differences by gender and sexual orientation. Thomeer (2013) studied sexual minority status and health and found that socioeconomic status impacted outcomes, and age and sex were moderating factors. Fredriksen-Goldsen et al. (2013) noted that there is a lack of studies of different LGB age groups, and LGB older adults have a higher risk for poor mental health, disability, smoking, and excessive drinking. Coulter et al. (2014) reported that there is a lack of research on LGBTQ populations needed to comprehend the unique mechanisms

involved in improving health and reducing in equities in these populations. There is a need to further explore factors that influence the relationship between sexual minority status and health outcomes. Sexual minority populations face stigma that impacts these outcomes.

Sexual Minority Status and Stigma

Sexual minority status is related to stigma, which may be a factor in psychological distress outcomes. Corrigan et al. (2013) reviewed literature regarding how to reduce self-stigma by coming out. Corrigan et al. noted that self-stigma has a negative effect on the lives of people suffering from mental illness. When a person internalizes prejudicial beliefs, they suffer from decreased self-esteem and self-efficacy. Corrigan et al. reported those studies of Blacks, the elderly, females, gay men, and lesbians supported the findings. According to Corrigan et al., the impact of stigma needs to be more fully understood in the sexual minority population. Sexual minority is associated with stigma, and this issue may not be apparent to others without self-disclosure. The individual incorporating stigma associated with being a sexual minority, without self-disclosure, is likely to suffer from the negative impacts of this self-stigma. Keeping this secret and suppressing sexual identity can have harmful effects on mental and physical health and well-being, as well as negative effects on relationships and employment. The disclosure of a secret can help to reduce hurtful impacts and result in an increased sense of personal empowerment and self-esteem.

The minority sexual identity groups have been stigmatized, but disclosure could promote empowerment and reduce self-stigma. Corrigan et al. (2013) reviewed the

literature and found researchers who support this assertion. Morrow (1996) developed a program that helped lesbians in their coming out efforts with 10 sessions that addressed issues such as homophobia communication skills, sexism assertiveness training, the costs and benefits of coming out, and workplace issues. Morrow found that higher disclosure rates were related to lesbian identity development and enhanced personal empowerment. While this report was based only on literature findings, which might have been biased and self-supporting, the disclosure of self-stigma reduces the negative impacts of stigma.

Hatzenbuehler, Phelan, and Link (2013) reported that living with a stigma is a cause of health inequalities in different populations. Hatzenbuehler et al. reviewed reported that stigma meets all of the necessary criteria to be considered a primary cause of health inequalities. Stigma impacts physical and mental health outcomes that affect millions of the U. S. population via multiple mechanisms; it disrupts or inhibits access to structural, interpersonal, and psychological resources that could be used to avoid or decrease poor health and facilitates the development of new mechanisms to ensure health inequalities among socially disadvantaged populations. According to Hatzenbuehler et al., a failure to consider stigma in this context results in a lack of consideration for social factors that lead to poor health and to the inefficacy of public health interventions. It is important to understand mechanisms that lead to health inequities among the stigmatized, but these tend to remain undetected. Hatzenbuehler et al. noted that health information is not adequately provided to LGBT populations, which

perpetuates health disparities. Researchers must further explore the impacts of stigma as a social determinant of population health.

Stigma impacts the physical and mental health of minorities. As noted by Corrigan et al. (2013), the disclosure of secrets kept safe with self-stigma can result in increased personal empowerment and self-esteem. However, this is not always the case, as is exemplified by Ferdoush (2013), who reported that the disclosure of a minority sexual identity, such as being a kotis, can lead to negative outcomes. In any case, living with stigma is a cause of health problems and health inequalities (Hatzenbuehler et al., 2013). To avoid these negative outcomes, it is important to understand mechanisms that lead to health inequities among the stigmatized, such as stigma and discrimination. There is a need to further explore stigma as a factor influencing anxiety and depression in the lesbian population. This group faces stigma and discrimination, which negatively impacts health outcomes.

Sexual Minority Status and Discrimination

Sexual minority status is related to discrimination, which may also be a factor in psychological distress outcomes. Ahmed, Andersson, and Hammarstedt (2013) conducted a field experiment to determine if gay men and lesbians are discriminated against in the hiring process of the Swedish work environment. For the study, job applications were sent to 4,000 employers in 10 occupations with a random assignment of gender and sexual orientation. Ahmed et al. found that there was sexual orientation discrimination against the gay male and lesbian applicant, and this varied discrimination across different occupations, with a concentration in the private sector. The gay male

applicant was discriminated against in what would be considered a typical male-dominated occupation, and the lesbian applicant was discriminated against in what would be considered a typical female-dominated occupation. For example, findings from *t*-tests were that a significantly lower response rate was found for gay male applicants compared to that for heterosexual male applicants in the private sector (p = .008), and a significantly lower response rate was found for lesbian applicants compared to that for heterosexual female applicants in the private sector ($p = 0.002$); findings were not significant for the public sector.

Ahmed et al. (2013) reported that there is now evidence of discrimination against gay men and lesbians in Sweden. However, the degree of discrimination found was to be smaller than what was expected, but this can be explained by a general acceptance of gay men and lesbians in Sweden compared to other countries. Law in Sweden forbids discrimination against sexual orientation, and this awareness may be more prominent in the public sector, which would explain higher rates of discrimination found in the private sector. Ahmed et al. further concluded that findings may be misleading because gay men and lesbians may not apply to jobs if they believe there is little chance of obtaining the job. This could lead to false conclusions about discrimination tendencies that actually take place. A study limitation was that the investigation took place only in the initial stage of the job search and hiring process. Discrimination might also be found at other times, such as during the interview, wage bargaining, and on-the-job stages. Ahmed et al.'s study was further limited by the location and inclusion of only gay men

and lesbians. Further research on sexual orientation and discrimination is needed to fully understand its prevalence and impact.

Gamarel, Reisner, Parsons, and Golub (2012) explored the relationship between socioeconomic position discrimination and psychological distress. The sample for the study was a community-based group of gay and bisexual men from New York City. Specifically, Gamarel et al. investigated the relationship between discrimination based on race/ethnicity and socioeconomic position and mental health distress in a sample of 294 participants. Survey research was used to assess demographics, discrimination experiences (last 12 months), domains of discrimination, and mental health distress. Gamarel et al. found that discrimination was significantly related to increased depressive ($p < .01$) and anxious symptoms ($p < .01$). Discrimination due to socioeconomic position was linked to higher discrimination scores and significantly higher depressive ($p < .01$) and anxious symptoms ($p < .01$). Socioeconomic position was the only significant domain of discrimination related to mental health distress.

Gamarel et al. (2012) reported several study limitations, such as the use of a convenience sample, which may not be representative of the larger gay and bisexual male population. The cross-sectional design did not allow for causal inferences to be made that are potentially impacted by changes over time. Measurement-related issues, such as the accuracy of self-reporting and the lack of assessment of moderating factors may have impacted findings. However, Gamarel et al. concluded that socioeconomic position discrimination is related to psychological distress in gay and bisexual men, and more research is needed to understand this discrimination and related impacts.

Heintz (2012) conducted a qualitative study to explore the sexual identity management experiences of lesbian executives who face discrimination in the work place. The study included use of the phenomenology approach and a sample of 15 self-identified lesbian women executives, ages 33 to 57 years. Of this group, 12 were lesbians who chose to reveal their sexual identity; 11 were White; and the remainders were Black, Asian American, Latina, and Native American. The participants were from different locations (California, Colorado, Florida, Michigan, Missouri, Virginia, Washington State, and Washington, DC).

Heintz (2012) revealed that all of the participants experienced the management of the disclosure of their sexual identity. This disclosure was shaped by experiences encountered as the participants progressed to higher positions because they were vulnerable by being a lesbian. The disclosure was also shaped by the dilemma of needing to be authentic, but needing to avoid negative consequences of disclosure that might include the loss of their job. Disclosure decisions were shaped by reactions of others, feelings about sexual identity management, and career trajectories. Many did not disclose their sexual identity until they had reached a higher position. All of the participants reported that there was a tension between the workplace, which was heterosexual, and their lesbian identity. This led to anxiety for those who cared about the reactions of others and for those who chose to disclose their identity. Disclosure was a dilemma for many.

Heintz (2012) also reported study limitations, such as the use of only lesbian executives, which may have underrepresented those who chose not to disclose their

identity. The use of narrative data only also limited findings. However, this detailed information provided insights into the lived experience of lesbian executives regarding discrimination and the ongoing dilemma about coming out. Authenticity needs was a driving force for this group in managing their sexual identity disclosure decisions.

Lesbians and other sexual minority groups continue to face discrimination. Ahmed et al. (2013) claimed that gay men and lesbians are discriminated against in the hiring process of the Swedish work environment. Ahmed et al. concluded that further research on sexual orientation and discrimination is needed to fully understand its prevalence and impact. Other studies such as those by Gamarel et al. (2012) and Heintz (2012) also provided support for the notion that sexual minorities experience discrimination. Gamarel et al. found that socioeconomic position discrimination was related to psychological distress. Heintz found that lesbian executives face discrimination, and this discrimination impacts their decisions for disclosure of their sexual identity with related stress, which supports the need for the current study.

Sexual Minority Status, Self Esteem, and Coming Out

Self-esteem and coming out may influence psychological distress outcomes related to sexual minority status. Greene and Britton (2013) explored the influence of forgiveness on self-esteem and shame in LBGT and questioning. Greene and Britton surveyed 657 LGBTQ individuals. Findings were that higher self-forgiveness and lower shame proneness predicted self-esteem. Forgiveness of self, others, and situations independently and partially mediated the association between shame proneness and self-esteem. Study limitations included the use of a mostly White sample. Forgiveness was

an important mechanism to reduce shame and increase self-esteem in this population. Coming out is another factor that is related to self-esteem.

Duffy (2011) presented the experiences of lesbian women regarding coming out in an Irish hospital setting. Duffy used a phenomenological approach to gather this information. In the Irish society, lesbian women have coping skills based on knowing how to act, react, and behave in daily life, but problems come up when seeking healthcare. Thus, Duffy explored lesbian women's experiences as they sought Irish health care. Four lesbian women participated in the study and presented their experience of coming out to a health care provider. The experiences of these women were explored as related to being objectified and feeling shame and freedom. Duffy explained that the small sample, the use of the phenomenological method, and the researcher's interpretation of findings limited the study. Participants experienced discrimination and prejudice manifested with overt and covert behaviors, such as inappropriate questions.

Durso and Meyer (2013) identified patterns and predictors involved when LGBs disclose their sexual orientation to healthcare providers. For this study, participants included 396 self-identified LGB individuals ages 18 to 59 years. The sample was from New York City and included equal numbers of men and women and equal numbers of Whites, Blacks, and Latinos. Interviews took place at baseline and 1 year later. Specifically, the relationships among disclosure of sexual orientation disclosure, minority stress, demographic characteristics, and health were explored. Nondisclosure rates were significantly higher for bisexual men (39.3%) and bisexual women (32.6%) compared with gay men (10%) and lesbians (12.9%). Age, education level, immigration

status, medical history, internalized homophobia level, connectedness to the LGBT community, and sexual identities of the patient were significant factors predicting disclosure. One year after the initial study, nondisclosure was related to poorer psychological well-being. Study limitations were that the sample size was under age 60 years of age, which may have impacted findings that nondisclosure did not impact physical health. Durso and Meyer concluded that disclosure is preferred because nondisclosure led to poor psychological well-being, and to assist with this process, interventions need to tailor messages to subpopulations and understand differences between bisexual- and gay/lesbian-identified people.

Mehra and Braquet (2011) presented a framework for LGBTQ coming out. Due to homophobic and heterosexist attitudes and behaviors, LGBTQ individuals are likely to be depressed with a negative self-image; have feelings of shame, guilt, and failure; and attempt or commit suicide and or abuse drugs or alcohol. Coming out is potentially stressful and may include rejection from family members and peers, as well as stigmatization, abuse, and discrimination in school and the workplace. Coming out, however, can also have a positive effect, such as decreased stress and anxiety, with increased self-esteem, well-being, and quality of life.

Mehra and Braquet (2011) gathered the content for their framework from qualitative studies and action research conducted by two openly gay library and information science professionals at the University of Tennessee-Knoxville. The studies took place from 2005 to 2011. Interviews with 21 self-identified LGBTQ individuals took place to determine best actions to support LGBTQ people during the coming out

process. The proposed framework was designed to meet the needs of LGBTQ people during five coming out phases: "self-recognition, sharing with other LGBTQ people, telling close friends/family, positive self-identification, and integration of LGBTQ identity" (Mehra & Braquet, 2011, p. 401). Mehra and Braquet noted that there was an exploratory practice-based framework. As a current-day reference, there are five areas and these include "access to electronic resources, user instruction, library commons, outreach liaison, and virtual reference" (Mehra & Braquet, 2011, p. 401). Each of the areas are focused on meeting the needs of LGBTQs during the process of coming out. For this article, more information was provided regarding the framework than the study procedures; however, Mehra and Braquet detailed information to assist LGBTQ people while coming out.

Hartwell, Serovich, Grafsky, and Kerr (2012) conducted a content analysis of articles about coming out for GBL individuals. Articles from couple- and family-therapy-related journals from 1996 to 2010 were analyzed. Hartwell et al. found that there was an increase in published articles with GLB therapy being the largest focus of publications. New research areas included studies of GLB mental health and substance use, sexual minority adolescents, and supervision and training. While research with GLB populations is increasing, Hartwell et al. concluded that the scope of the GLB-related research is "narrow and very shallow" (p. 230). This supports the current study designed to understand if perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety.

Researchers have supported the conclusion that forgiveness increases self-esteem (Greene & Britton, 2013). Coming out may be stressful, but also has the potential to increase well-being (Duffy, 2011; Durso & Meyer, 2013; Mehra & Braquet, 2011). This coming out process may be met with discrimination and prejudice (Duffy, 2011). However, Durso and Meyer (2013) found that nondisclosure was related to poorer psychological well-being. Hartwell et al. (2012) reported that, while research with GLB populations is increasing, the scope remains narrow. Thus, the need for the current study is supported.

Summary and Conclusions

The major themes in the literature were that sexual minority status leads to stress and poor mental and physical health, stigma, and discrimination. Sexual minority status leads to depression, anxiety, and poor well-being (Burton et al., 2013; Collier et al., 2013; Duncan & Hatzenbuehler, 2014; Gevonden et al., 2014; Stone et al., 2014). Lesbians report similar mental health outcomes as compared to heterosexual sisters, and they also reported higher levels of self-esteem (DeAngelis, 2002; House et al., 2011; Rothblum & Factor, 2001; Szymanski & Meyer, 2008). There are factors that illustrate influence outcomes, such as age, gender, shared etiological or genetic factors childhood, sexual abuse, risky family, environment, and socioeconomic status (Fredriksen-Goldsen et al., 2013; Lindley et al., 2012; Thomeer, 2013; Zietsch et al., 2012). Furthermore, there is a need to explore other factors that influence outcomes in this particular population (Coulter et al., 2014). Sexual minority individuals live with stigma and discrimination, which result in poor health outcomes (Ahmed et al., 2013; Ferdoush,

2013; Gamarel et al., 2012; Hatzenbuehler et al., 2013). Factors such as coming out and forgiveness can increase well-being (Corrigan et al., 2013; Duffy, 2011; Durso & Meyer, 2013;Greene & Britton, 2013; Heintz, 2012; Mehra&Braquet, 2011). Despite these findings, there is a need for continued study of these populations. Hartwell et al. (2012) reported that while research with GLB populations is increasing, the scope remains narrow. The present study fills this gap and will extend knowledge in the discipline regarding factors that predict anxiety and depression in the lesbian community. In Chapter 3, I will present the methodology used in the study to include an introduction, research design procedures, and data processing and analysis.

Chapter 3: Research Method

Introduction

The purpose of this research study is to determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in the lesbian community. In this chapter, the research design and rationale will be discussed, followed by a description of the research population, sampling procedures, procedures for recruitment, and data collection. The instruments used in the study will also be reviewed in detail, along with data analysis procedures, threats to validity, and ethical concerns.

Research Design and Rationale

Below are the two research questions that I seek to address and the associated null hypotheses.

The research questions are as follows:

RQ1: do perceptions of discrimination, coming out, and self-esteem adequately predict depression in women identifying as lesbian, as measured by the Beck Depression Inventory, in lesbian women?

H_0: perceptions of discrimination do not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: perceptions of discrimination adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

H_0: coming out does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: coming out adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

H_0: self-esteem does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: self-esteem adequately predicts depression, as measured by the *Beck Depression Inventory*, in lesbian women.

RQ2: do perceptions of discrimination, coming out, and self-esteem adequately predict anxiety in women, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women?

H_0: perceptions of discrimination does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: perceptions of discrimination adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_0: coming out does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: coming out adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_0: self-esteem does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: self-esteem adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

For the first research question, the predictor variables are perceptions of

discrimination (defined as perceptions of being discriminated against due to being lesbian), coming out (defined as the self-identification as a gay or lesbian), and self-esteem. Discrimination was assessed with the SSDE, and items on this questionnaire further defined the variable. Coming out was assessed with the Outness Inventory (OI), and items on this questionnaire furthered define the variable. Self-esteem was assessed with the RSE, and items on this questionnaire further defined the variable. Depression is the dependent variable as measured by the BDI-II (Beck et al., 1996). The second research question contains independent variables that are identical to the first research question, perceptions of discrimination, coming out, and self-esteem. However, the dependent variable is anxiety. Anxiety was assessed with the State-Trait Anxiety Inventory.

A cross sectional quantitative survey design was used to answer the research questions. Cross-sectional research designs have three distinctive features: no time dimension, a reliance on existing differences rather than change following intervention, and groups are selected based on existing differences rather than random allocation (Hall, 2009). As the research questions aim to determine if the independent variables predict the dependent variables, the quantitative research design is the only design that can answer this question in a statistically significant manner.

Population

The target population for this study was self-identified lesbian woman between the ages of 18 and 64 years from the United States of America. The sample included lesbian women who are out (publically gay) and not out (not publically gay). The

population of the United States is 318, 892, 103, as reported by the U.S. Census Bureau (2014), and the lesbian population is relatively small in comparison to their heterosexual counterparts.

Sampling and Sampling Procedures

The sampling frame consisted of self-identified lesbian women from the United States of America. A snowball sampling of 100 lesbian women was used in this study. Snowball sample is a nonprobability sampling technique that is appropriate to use in research when the members of a population are difficult to locate. A snowball sample is one in which the researcher collects data on the few members of the target population he or she can locate, then asks those individuals to provide information needed to locate other members of that population whom they know (Leedy & Ormrod, 2013). This approach was feasible given size of the target population and the time and financial constraints of this study.

G*Power (Erdfelder, Faul, & Buchner, 1996) was used to arrive at the minimum sample size for the linear regression. A power analysis was conducted to determine the sample size necessary to accurately reject a null hypothesis for a regression analysis with a power level of .80. The power analysis was calculated with the alpha level set at .05 and the beta level set at .80. As recommended by Cohen (1977), with three independent variables, for a medium effect, a sample of about 76 will yield a power of around 0.8 in testing hypotheses, and a sample of 85 is needed for a correlation analysis (Cohen, 1977; UCLA, 2007). Thus, it was determined that a sample size of 100 participants would be sufficient to test each of the hypotheses with a power of .80. One

hundred participants were used as buffering in case of corrupted data. The effected size and alpha levels are the standards for computing power analysis in social scientific research (Leedy & Ormrod, 2013).

Procedures for Recruitment

In this study, I used a hybrid sampling approach. A convenience self-sampling approach was used initially. The link to the survey was posted on the web site of Richard F. Ramsey, Professor Emeritus at Calgary University, and websites and social media outlets exclusive to or frequented by lesbians. The website link specified United States of America and ask respondents to forward to friends and colleagues in the United States of America. Also an ad with the link was posted on Craigslist (https://craigslist.org/), and flyers with the link was posted in areas known to have high lesbian traffic. Potential respondents were directed towards the link via the website, and there was a short summery description of the survey below the survey link. Lesbian women who complete the survey was asked to pass the survey link on to other lesbians in their social circle. Therefore, a snowball sampling approach was used as a second option to increase the respondent pool.

The data collection period remained open until the target sample of 90 respondents is reached. Once the data collection period had ended, a message was presented thanking the women for their interest in the study and indicating the study is now closed.

Data Collection

The survey instrument was created in the Survey Monkey online survey tool (Survey Monkey, 2014). The survey instrument created included demographic questions and all items from the individual scales. A link to the online survey tool was generated and given to all respondents. The e-mail message, included basic information about the purpose of the study and the length of time needed to complete the study. Additionally, the introduction to the survey questionnaire, which can be found in Appendix B, contain informed consent materials including the participant's right to not participate and a description of confidentiality and usages of the study. To help avoid a social desirability response set, participants was informed of the nature of the study, which was to better understand stress in lesbian women.

Instrumentation and Operationalization of Constructs

In this study, I used the Outness Inventory (OI), to assess coming out (defined as the self-identification as a gay or lesbian) to assess the extent to which individuals are out to various individuals (eg, mother, work, church) (Mohr & Fassinger, 2000) (Appendix C). There are five items reflecting the five contexts: friends, family, coworkers, school peers, and religious community. There were a total of 11 questions; each score on a 7-point scale ranging from 1 (target *definitely does not know about your sexual orientation status*) to 7 (target *definitely knows about your sexual orientation status, and it is openly talked about*). Total scores were computed across the entire inventory by summing scores from each of the 11 questions. The higher the individual's score, the more people were aware that the respondent is LGB. One indicator of this

scale's validity is its high correlation with general openness about sexual orientation, scored on a 1 to 7 scale and the total scores on the OI. Those who report being more open in general tend to have higher scores on the OI (Balsam & Mohr, 2007). Mohr and Fassinger (2000) reported findings that internal reliability included a range from α =.74 to .97 for the subscales. In addition, Belmonte (2011) reported that overall internal reliability was high, with α=.92 and a range from α =.72 to .82 for subscales. Discriminant validity was demonstrated by Mohr and Fassinger (2003). Thus, adequate validity and reliability information was provided for this scale.

Discrimination (defined as perceptions of being discriminated against due to being lesbian), was measured using the Schedule of Sexually Discriminatory Events (SSDE) (House et al., 2011). The SSDE measures both the frequency of discriminatory events and the appraisal of the stressfulness of these events (Appendix E). The scale consisted of 19 questions, where each question asks about frequency and stressfulness of the life events on scale of 1 to 6, where 1 is *not at all stressful* and 6 is *very stressful*. A sexual discrimination score was computed for each respondent by computing a mean score from the 19 questions. The alpha reliability coefficient for the frequency subscale in previous research was .92, while the alpha reliability coefficient for the stress appraisal subscale was .94. Construct validity of the scale was confirmed and it was shown to be a valid measure of discriminatory experiences among sexual minorities. Validity was confirmed, as there was a significant positive linear relationship between the frequency subscale and depression (r = .26, p< .001) and anxiety (r = .30, p< .001). There was also a significant positive relationship between the stress appraisal subscale

and depression (r = .27, p< .001) and anxiety (r = .34, p< .001). Studies were limited regarding assessment of this scale, however, adequate validity and reliability information was provided.

The State-Trait Anxiety Inventory was used to measure of anxiety (Spielberger et al., 1983) (Appendix G). There are 20 items assessing state anxiety using a scale of 1 to 4, where 1 is *almost never* and 4 is *almost always*. Total scores were computed from the individual items by summing the 20 item score together. Higher scores indicate greater anxiety. Internal consistency coefficients for the scale have ranged from .86 to .95. Considerable evidence confirms the construct and concurrent validity of the scale (Spielberger, 1989). The scale is correlated with the parent 20-item State scale (Tluczek, Henriques, & Brown, 2009). Tluczek et al. reported concurrent validity of the 4- and 6-item versions. Scores from four study groups were compared to support this validity and reliability coefficients were ".91 for the 20-item scale, .82 for the 6-item scale, and .77 for the 4-item version" (p. 19). In one study reliability of this scale was evaluated with the test-retest method and internal consistency was assessed with Cronbach's alpha. Results showed that internal consistency was excellent, with Cronbach's alpha values ranging from 0.38 to 0.89 and a Cronbach's alpha for the total scores of 0.86. Test-retest correlation coefficients were highly significant and intraclass correlation coefficient was 0.39 to 0.89. The STAI was concluded to be reliable, valid and sensitive (Quek, Low, Razack, Loh, & Chua, 2004). Thus, adequate validity and reliability information was provided for this scale.

Depression was measured using the Beck Depression Inventory-II (BDI-II) (Beck et al., 1996) (Appendix D). The BDI-II yields a coefficient alpha of .92. There are 21 items, most of which assess depressive symptoms on a Likert scale of 0-3. The two exceptions are Questions 16 and 18. Question 16 addresses changes in sleeping patterns, while Question 18 addresses changes in appetite. The scale in these two items consist of 0, 1a, lb, 2a, 2b, 3a, and 3c. Clinical interpretation of scores is as follows: 0-13 - *minimal depression*, 14-19 - *mild depression*, 20-28 -*moderate depression*, and 29-63 - *severe depression* (Beck et al., 1996). Total depression scores were computed by summing all of the scores from the 21 items.

The BDI is commonly used to identify and assess depressive symptoms. It is highly reliable for any population with a high coefficient alpha of .80. Construct validity has been established since the BDI is able to distinguish depressed from non-depressed patients. BDI-II coefficient alphas are higher than those for the BDI-1A ranging from .92 for outpatients to .93 for college students. A test-retest reliability coefficient of .93 was found when 26 outpatients were tested at first and second therapy sessions one week apart. Convergent validity of the BDI-II was shown when the BDI-1A and the BDI-II were given to two sub-samples of outpatients, yielding a correlation of .93. Factorial validity has also been established with inter-correlations of the 21 items (Beck et al., 1996).

Wang and Gorenstein (2013) reviewed the psychometric properties of the Beck Depression Inventory-II (BDI-II) by examining 118 studies of non-clinical, psychiatric/institutionalized, and medical samples. These authors concluded that

internal consistency was 0.9 and retest reliability ranged from 0.73 to 0.96. There is a high correlation between BDI-II and the Beck Depression Inventory (BDI-I). The criterion-based validity demonstrated good sensitivity and specificity for the identification of depression, compared to an adopted gold standard, with cutoff scores varying dependent on sample type. The authors concluded that the BDI-II has high reliability, distinguishes between depressed and non-depressed people, and has good concurrent, content, and structural validity. Thus, adequate validity and reliability information was provided for this scale.

The Rosenberg Self-Esteem Scale (RSE) is a 10-item inventory scored on a 4-point scale, ranging from (1) *strongly agrees* to (4) *strongly disagree* (Rosenberg, 1965) (Appendix A). High scores represent high self-esteem, and low scores equal low self-esteem. For Items 1, 2, 4, 6, 7, *Strongly Agree*=3, *Agree*=2, *Disagree*=1, and *Strongly Disagree*=0. For Items 3, 5, 8, 9, 10 (which are reversed scored), *Strongly Agree*=0, *Agree*=1, *Disagree*=2, and *Strongly Disagree*=3. Alpha coefficients ranged from 0.72 to 0.87 (Rosenberg, 1965). Total RSE scores were computed by summing the scores from the 10 items. Two-week test-retest reliability was confirmed with a coefficient of .85 and concurrent validity was confirmed with coefficients with other self-esteem measures ranging from .56 to .83 (Rosenberg, 1965). Davis, Kellett, Beail, and Turk (2009) explored the reliability and validity of the Rosenberg Self-Esteem Scale (RSES) in a sample of 219 participants with intellectual disabilities. Factor analysis revealed two factors of s Self-Worth and Self-Criticism and moderate internal reliability. Thus, while

only moderate reliability and validity have been demonstrated in some instances, adequate validity and reliability information has been provided for this scale.

Demographic questions were added to the survey monkey survey. The demographic questionnaire (Appendix F) assesses gender, lesbian self-identification, age, and race/ethnicity.

Data Analysis

SPSS statistical software was used to analyze the data. Descriptive statistics was performed to analyze the demographics of the respondents, including gender, age, and sexual identity. A hierarchical regression was used to test the hypothesis, with self-esteem on the first block, perceptions of discrimination on the 2nd, and coming out third (Field, 2012; Tabachnick & Fidell, 2012). Specifically, since standard multiple regressions evaluates the relationship between a set of independent variables and a dependent variable, but does not account for the impact of each variable, hierarchical regression was used. Hierarchical regression evaluates the relationship between a set of independent variables and the dependent variable, and it accounts for the impact of a different set of independent variables on the dependent variable. With this hierarchical regression, the independent variables were entered in the analysis in a sequence of blocks. SPSS was used for this analysis and regression in SPSS includes regression diagnostics, which include tests for normality, linearity, independence and homogeneity of variance, and multicollinearity (Field, 2012; Tabachnick & Fidell, 2012). Thus, hierarchical regression was conducted to address research questions and test the following hypotheses:

RQ1: do perceptions of discrimination, coming out, and self-esteem adequately predict depression in women identifying as lesbian, as measured by the Beck Depression Inventory, in lesbian women?

H_0: perceptions of discrimination do not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: perceptions of discrimination adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

H_0: coming out does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: coming out adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

H_0: self-esteem does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: self-esteem adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

RQ2: do perceptions of discrimination, coming out, and self-esteem adequately predict anxiety in women, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women?

H_0: perceptions of discrimination do not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: perceptions of discrimination adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_0: coming out does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: coming out adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_0: self-esteem does not adequately predict anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

H_a: self-esteem adequately predicts anxiety, as measured by the State Trait Anxiety Inventory for Adults, in lesbian women.

Specifically, the equation will indicate if there is a significant predictive relationship between the independent and dependent variables.

Threats to Validity

Although this study has strengths, there are also limitations of the study. The use of a convenience self-sampling approach and a volunteer sample of participants, from the United States of America. A further threat to this study is that the participants completed this study on the Internet without me being present to respond to questions. Thus, there is the possibility that the participants may have found some questions ambiguous. As a result, the participants was given my contact information and the dissertation chair to respond to any questions or concerns. Bias issues were also of concern when conducting this study. Individuals may respond in a socially desirable manner. Social desirability can be a concern when individual's complete surveys. Thus, participants knew that all of their responses were anonymous with no threat of tracking the respondent of each survey.

Ethical Procedures

This study was conducted based upon permission granted and the ethical standards indicated by the Walden University Institutional Review Board (IRB). Respondents was presented with information related to an informed consent. This will ensure that they are aware that they are in involved in a research study and have given their consent or permission to participate. There was no deception or coercion involved in this research. Anonymity was insured as there was no personally identifiable information collected in the survey. There is minimal risk of emotional distress that can hinder the completion of the anxiety and depression measures. To deal with any distress, participants was informed of the purpose of the study and was provided information on how to contact me if necessary. The respondent's decision to begin the study was deemed as providing their agreement to the terms of the informed consent communicated online prior to beginning the survey. The data will be kept for 5 years on a computer drive where it will be password-protected and encrypted.

Summary

This chapter presented the methodology for the study. This included a discussion of the research design and rationale, and a description of the research population, sampling procedures, procedures for recruitment, and data collection. The instruments used in the study and the data analysis procedures, threats to validity, and ethical concerns were also presented. The following Chapter 4 will present the results of the study. This will include a description of the sample and results related to the

research questions and hypotheses. Chapter 5 will present a discussion of these findings with conclusions and recommendations.

Chapter 4: Results

Introduction

The purpose of this research study was to determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression in the lesbian community. This study utilized a quantitative survey design to assess whether the independent variables, the frequency and stressfulness of sexual discrimination, coming-out, and self-esteem were predictors of the dependent variables depression and anxiety. The research questions and hypotheses are as follows:

RQ1: Do perceptions of sexual discrimination, coming out, and self-esteem adequately predict depression in women identifying as lesbian, as measured by the Beck Depression Inventory, in lesbian women?

H_0: Perceptions of sexual discrimination does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

H_a: Perceptions of sexual discrimination adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

RQ2: Do perceptions of sexual discrimination, coming out, and self-esteem adequately predict anxiety in women identifying as lesbian, as measured by the State Trait Anxiety Scale, in lesbian women?

H_0: Perceptions of sexual discrimination does not adequately predict anxiety, as measured by the State Trait Anxiety Scale, in lesbian women.

H_a: Perceptions of sexual discrimination adequately predicts anxiety, as measured by the State Trait Anxiety Scale, in lesbian women.

This chapter contains a reporting of the data collection process, along with the results of the analyses, including, sample descriptive statistics, followed by a Chronbach's alpha reliability analysis of the Schedule of discriminatory events, Rosenberg Self-esteem Scale, Outness Inventory, State Trait Anxiety Scale, and the Beck Depression Inventory. Next, will be an assessment of the research question using the linear multiple regression. The linear regressions were preceded by tests that evaluate if the assumptions of the multiple regression have been met. These include an examination of multicollinearity, outliers, normality, linearity, and homoscedasticity (Field, 2013).

Data Collection

The data collection period lasted for 61 days. The sampling frame consisted of self-identified lesbian women in the United States. A snowball sampling of 105 lesbian women was used in this study. Snowball sampling is a nonprobability sampling technique that is appropriate to use in research when the members of a population are difficult to locate (Leedy & Ormrod, 2013). Therefore, it is not possible to calculate a response rate.

There data collection period ended when 105 lesbian respondents completed the entire survey. There was no missing data among any of the 105 respondents, leaving the total respondent count at 105. The mean for all respondents was 44.00 (SD = 16.54). The majorities of respondents were White (79%) and not married (81.9%). Additionally, the majority of respondents (62.4%) earned less than $50,000.

Table 4.1

Frequencies: Demographics

	N	*%*	*M*	*SD*
Age			44.00	16.54
Ethnicity				
Asian	8	7.6%		
Black or African American	8	7.6%		
Hispanic or Latino	3	2.9%		
White	83	79.0%		
Other	3	2.9%		
Household Income				
Less than $25,000	24	22.9%		
$25,000, but less than $35,000	17	16.2%		
$35,000, but less than $50,000	14	13.3%		
$50,000, but less than $75,000	28	26.7%		
$75,000, but less than $100,000	9	8.6%		
$100,000, but less than $150,00	5	4.8%		
$150,000 or more	8	7.6%		
Marital Status				
Married	19	18.1%		
Cohabitating	29	27.6%		
Single/Never married	45	42.9%		
Divorced	8	7.6%		
Separated	1	1.0%		
Widowed	3	2.9%		

Results

Reliability Analysis

Chronbach's alpha reliability analysis was conducted on the Schedule of Discriminatory Events (SDE), Rosenberg Self-esteem Scale, Outness Inventory, and the Beck Depression Inventory (BDI). The alpha coefficient for the BDI was .954, indicating good reliability. The alpha coefficient for Outness Inventory was .856, indicating good reliability. The Rosenberg Self-esteem scale also had good reliability with an alpha coefficient of .917. The Schedule of Discriminatory Events, relating to the degree of stressfulness of the events, produced an alpha coefficient of .925, while the

Schedule of Discriminatory Events relating to frequency of events produced an alpha coefficient of .885. Finally, the State Trait Anxiety Scale produce and alpha coefficient of .934. In summary, all psychometric instruments demonstrated good reliability with the target population of this study.

RQ1. Do perceptions of discrimination, coming out, and self-esteem adequately predict depression in women identifying as lesbian, as measured by the Beck Depression Inventory, in lesbian women?

A multiple regression was conducted to determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression. The independent continuous variables in this model were perceptions of discrimination, coming-out, and self-esteem levels. The mean scores on the frequency of discriminatory events (M = 2.06, SD = .64) ranged from 1.08 to 4.15, where higher scores represented a greater number of events. The amount of stress produced by discriminatory events (M = 2.73, SD = 1.29) ranged from 1 to 6, where higher scores represented greater amount of stress produced by discriminatory events. The summed total scores of the Outness Inventory (M = 51.25, SD = 14.31) ranged from 13 to 70, where higher scores indicated that the respondent was more open about their sexual orientation with others. Self-esteem mean scores (M = 1.95, SD = .70) ranged from 1 to 4, where higher scores represented a lower self-esteem. Finally, total summed scores on the Beck Depression Inventory (M = 15.29, SD = 14.54) ranged from 0 to 58, where higher scores represented greater depressions.

Preliminary Analysis - Tests of Assumptions

Tests of normality, linearity, multicollinearity, and homoscedasticity were conducted during the preliminary analysis phase. Results indicated that the distribution of the standardized residuals was normal (see Figure 4.1). The plot of the standardized residuals and the standardized predicted values were rectangular in shape (see Figure 4.2). This indicated that there was no violation of homoscadasticity, as the distribution is not triangular shape, or linearity, as the distribution is not curvilinear in shape (Field, 2013; Tabachnick & Fidell, 2012). Finally, the variable inflation factor was used to assess multicollinearity. Results indicated that all values for the independent variables were below multcollinearity threshold of 10 (see Table 4.4). Therefore, there was no violation in the assumption of multicollinearity.

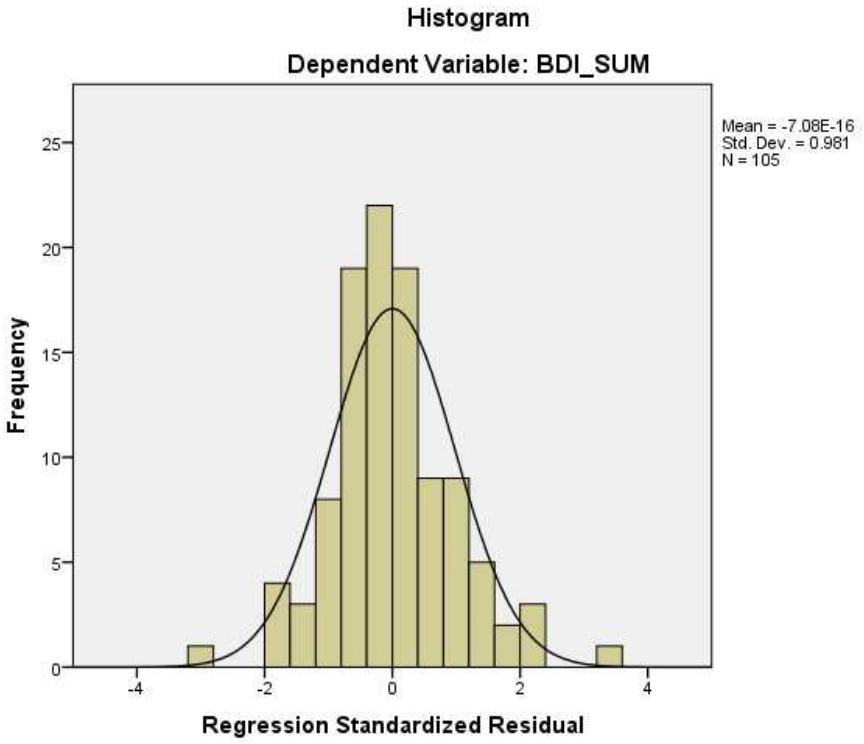

Figure 4.1: Distribution of the standardized residuals reveals a normal distribution, as the shape of the distribution has a bell shapped curve.

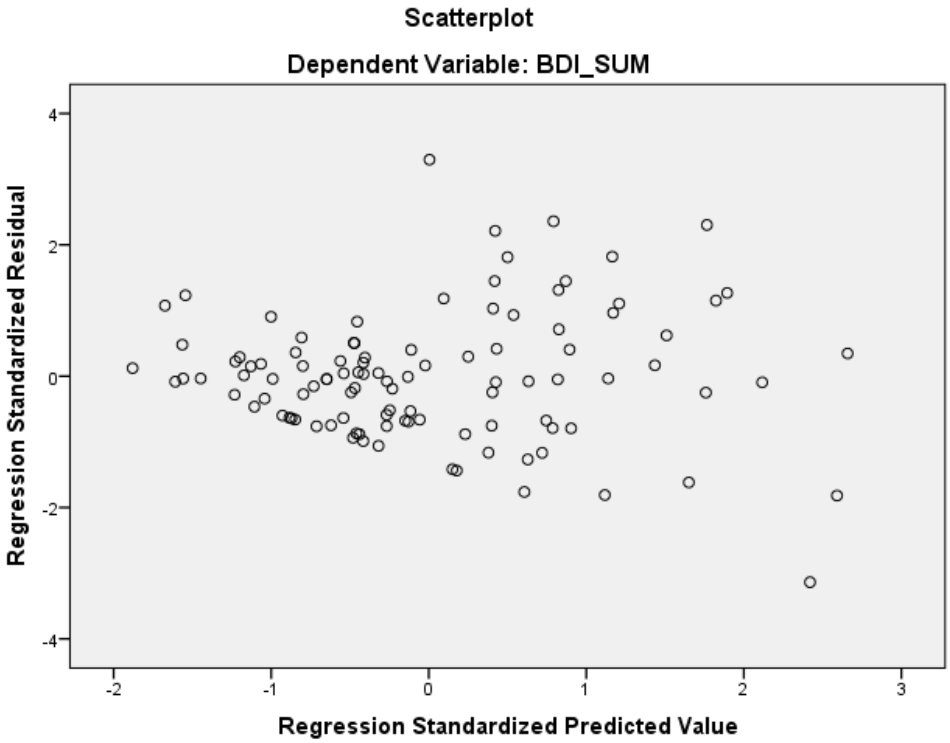

Figure 4.2: Plots of the standardized residuals and the standardized predicted values are rectangular in shape, indicating that there is no violation of homoscadasticity, as the distribution is not triangular shape, or linearity, as the distribution is not curvilinear in shape.

Primary Analysis

The results indicated that the model containing the frequency of discriminatory events, the stressfulness of discriminatory events, Outness, and self-esteem was a significant predictor of depression scores, $F(4, 100) = 14.94$, $p < .001$ (see Table 4.3). The model as a whole explained 37.4% of the variability in depression scores, which

indicates that the model had a large effect on depression scores, based on Cohen's (1988) guidelines of R^2 effect sizes, where 2% is small, 13% is medium, and 26% and above is large. See Table 4.2.

A further examination of the coefficients table revealed that only one of the four independent variables, self-esteem, made a significant contribution to the model (see Table 4.4). Self-esteem had a large effect on Beck Depression scores, where the standardized beta coefficient was .38 ($p < .001$), which revealed a strong positive linear relationship between self-esteem and depression. Since high self-esteem scores equal low self-esteem, the lower the self-esteem scores the greater the depression. Cohen's (1988) guidelines where .1 is small, .3 is medium, and .5 or higher is large. Neither the frequency (Beta = .234, *p* .087) nor the stressfulness (Beta = .006, *p* = .964) of discriminatory events made a significant contribution to the model. Additionally, the results indicated that Outness also had no statistically significant impact on depression scores (Beta = -.121, *p* = .139). Based on the results of the multiple regression analysis, the null hypothesis was rejected, as the model was a significant predictor of depression scores.

Table 4.2

Model Summary Table: Depression Regressed on perceptions of discrimination, coming-out, and self-esteem

R	R Square	Adjusted R Square	Std. Error of the Estimate
.612	.374	.349	11.72991

Table 4.3

ANOVA Table: Depression Regressed on Perceptions of Discrimination, Coming-out, and Self-esteem

Model	*SS*	*df*	*MS*	*F*	*p*
Regression	8224.356	4	2056.089	14.944	.000
Residual	13759.072	100	137.591		
Total	21983.429	104			

Table 4.4

Coefficients Table: Depression Regressed on Perceptions of Discrimination, Coming-out, and Self-esteem

	Unstandardized Coefficients		Standardized Coefficients			
Model	*B*	*SE*	Beta	*t*	*p*	VIF
(Constant)	-7.394	7.051		-1.049	.297	
SDE_Freq_Mean	5.059	3.203	.223	1.579	.117	3.192
SDE_Stress_Mean	1.270	1.615	.113	.787	.433	3.274
SES_Mean	7.750	1.775	.374	4.366	.000	1.172
Out_Sum	-.123	.083	-.121	-1.491	.139	1.058

RQ2. Do perceptions of discrimination, coming out, and self-esteem adequately predict anxiety in women identifying as lesbian, as measured by the State Trait Anxiety Scale, in lesbian women?

Another multiple regression was conducted to determine if perceptions of discrimination, coming-out, and self-esteem levels predict anxiety. The independent continuous variables in this model were again perceptions of discrimination, coming-

out, and self-esteem levels. The dependent variable was anxiety (M = 12.64, SD = 5.36), where the scores ranged from 6 to 24. For anxiety scores, high scores represented greater anxiety.

Preliminary Analyses - Test of Assumptions

Tests of normality, linearity, multicollinearity, and homoscedasticity were conducted during the preliminary analysis phase. Results indicated that the standardized residuals were normal, as the histogram followed the bell shaped curve (see Figure 4.3). Therefore, there was no violation in the normality. The plots of the standardized predicted values and the standardized residuals revealed a scatterplot that was rectangular in shape (see Figure 4.4). This indicated that there was no violation of homoscadasticity, as the distribution is not triangular shape, or linearity, as the distribution is not curvilinear in shape (Field, 2013; Tabachnick & Fidell, 2012). Finally, the variable inflation factor was used to assess multicollinearity. Results indicated that all values for the independent variables were below multcollinearity threshold of 10 (see Table 4.7). Therefore, there was no violation in the assumption of multicollinearity.

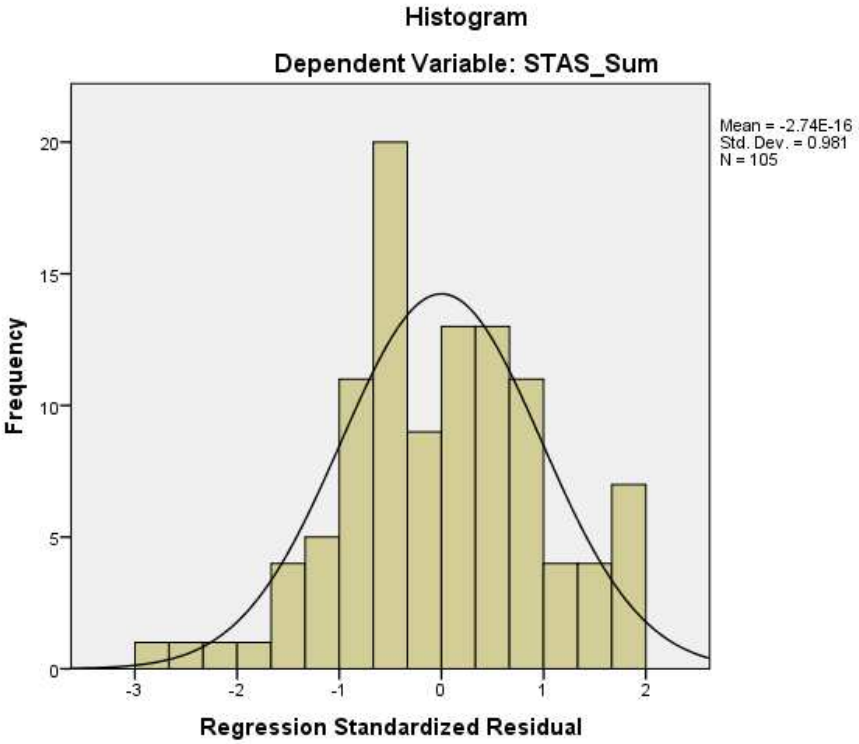

Figure 4.3: Distribution of the standardized residuals reveals a normal distribution, as the shape of the distribution has a bell shapped curve.

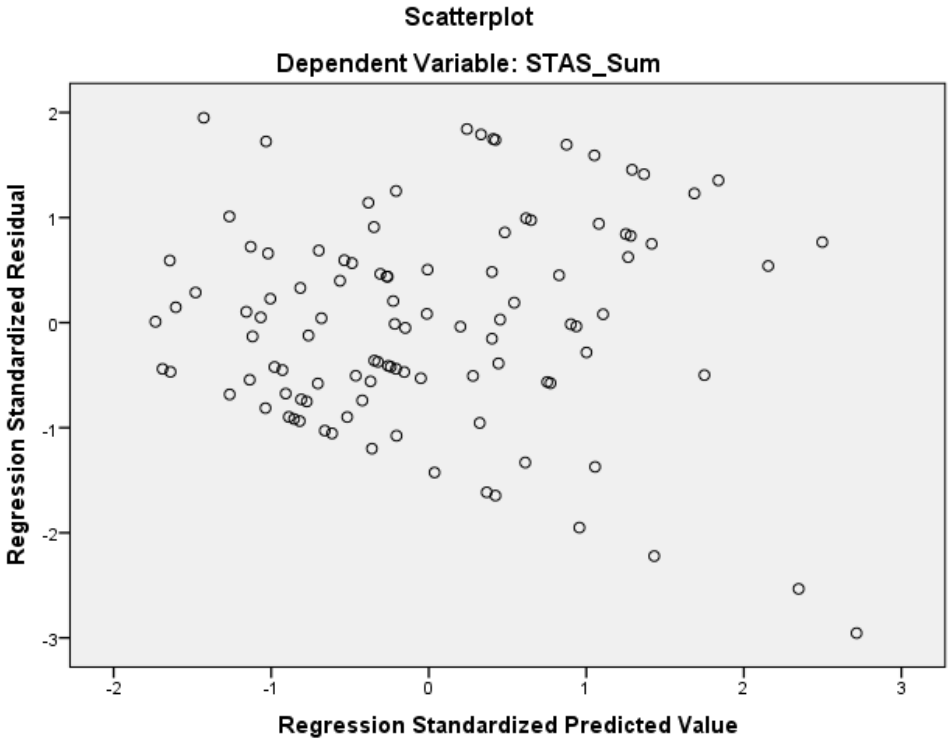

Figure 4.4: Plots of the standardized residuals and the standardized predicted values are rectangular in shape, indicating that there is no violation of homoscadasticity, as the distribution is not triangular shape, or linearity, as the distribution is not curvilinear in shape.

Primary Analysis

Results of the multiple regression indicated that the model was a significant predictor of anxiety, $F(4, 100) = 8.48$, $p < .001$, where the model explained 25.3% ($r^2 = .253$) of the variability in anxiety scores. Based on Cohen's (1988) effect size guidelines, the model had large effect on anxiety scores. A review of the coefficients table (see Table 4.7) indicated that self-esteem was the only variable that made a statistically significant contribution to the model (Beta = .359, $p < .001$), which revealed a strong

positive linear relationship between self-esteem and depression. Since high self-esteem scores equal low self-esteem, the lower the self-esteem scores the greater the depression. Outness did not make a statistically significant contribution to the model (Beta = -.088, p = .326). Frequency of sexually discriminatory events also did not make statistically significant contribution to the model (Beta = -.067, p = .666); neither did the stressfulness of discriminatory events (Beta = .265, p = .093). Based on the results of the multiple regression analysis, the null hypothesis was rejected, as the model was a significant predictor of depression scores.

Summary

A multiple regression was conducted to determine if frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predict depression. The results indicated that the model containing the frequency of discriminatory events, the stressfulness of discriminatory events, outness, and self-esteem was a significant predictor of depression scores, $F(4, 100) = 14.94$, $p < .001$. Only self-esteem made a significant contribution to the model. There was a strong positive linear relationship between self-esteem and depression, where lower self-esteem was related to higher depression scores. There was no significant predictive relationship between frequency of discriminatory events and depression, Outness and depression, and stressfulness discriminatory events and depression. However, as a whole, the model was significant, and, therefore, null hypothesis was rejected.

Another multiple regression was conducted to assess if frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predicted

anxiety. The results indicated that the model as a whole was a significant predictor of anxiety, $F(4, 100) = 8.48$, $p < .001$. As with the depression analysis, only self-esteem made a significant contribution to the model where lower self-esteem scores were associated with higher anxiety. As a result, the null hypothesis was rejected.

The next chapter, chapter 5, will serve as the conclusion section of this study. In chapter five, there will be an overview of the research study, along with an interpretation of the finding in the context of previous literature and the theoretical framework. In addition, recommendations are made regarding what further actions should be taken and proposed future research is suggested.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression in the lesbian community. This section presents an overview of the research study, and findings related to research questions and hypotheses. The discussion explains the significance of the findings and their relevance to previous research with an interpretation of the finding in the context of previous literature and the theoretical framework. Study limitations are presented within the context of this discussion. The conclusion addresses implications of the results. Recommendations are made regarding what further actions should be taken and proposed future research is suggested.

Research Study

The general research objective was to empirically determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in the lesbian community. This study utilized a quantitative survey design to assess whether the independent variables, the frequency and stressfulness of sexual discrimination, coming-out, and self-esteem were predictors of the dependent variables depression and anxiety. The descriptive variables were gender, age, race/ethnicity, employment status, and income level. Thus, the nature of this study was a non-experimental quantitative survey design. The research design included a cross sectional convenience sampling approach. The quantitative survey research design was chosen because it allowed for the collection of numerical data for statistical analysis and hypothesis testing. The data

collection period ended when 105 lesbian respondents completed the entire survey. The mean age for all respondents was 44 years, and most were White and unmarried. Since the sample was from United States of America, findings may not generalize to lesbian women in other countries.

Summary of Findings Related to Research Questions and Hypotheses

Research Question 1. Do perceptions of sexual discrimination, coming out, and self-esteem adequately predict depression in women identifying as lesbian, as measured by the Beck Depression Inventory, in lesbian women?

In summary, the results of the study found that for the majority of the participants in this study low self-esteem predicted depression. Factors of sexual discrimination and coming out were part of the regression model which were significant, but only self-esteem was independently and significantly related to depression.

Null Hypothesis #1. Perceptions of sexual discrimination does not adequately predict depression, as measured by the Beck Depression Inventory, in lesbian women.

Hypothesis #1. Perceptions of sexual discrimination adequately predicts depression, as measured by the Beck Depression Inventory, in lesbian women.

Findings from a multiple regression conducted to determine if frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predict depression, were that these factors significantly predicted depression scores. However, only self-esteem made a significant contribution to this outcome. There was a strong positive linear relationship between self-esteem and depression; lower self-esteem was related to higher depression scores. There was no significant predictive relationship

between frequency of discriminatory events and depression or outness and depression. Since overall, the model was significant, the null hypothesis was rejected. However, this finding must be interpreted with caution since only self-esteem significantly predicted the outcome of depression.

Research Question 2. Do perceptions of sexual discrimination, coming out, and self-esteem adequately predict anxiety in women identifying as lesbian, as measured by the State Trait Anxiety Scale, in lesbian women?

In summary, the results show that participants in this study low self-esteem predicted anxiety. Factors of sexual discrimination and coming out, were part of the regression model which was significant, but only self-esteem was independently and significantly related to anxiety.

Null Hypothesis #2. Perceptions of sexual discrimination does not adequately predict anxiety, as measured by the State Trait Anxiety Scale, in lesbian women.

Hypothesis #2. Perceptions of sexual discrimination adequately predicts anxiety, as measured by the State Trait Anxiety Scale, in lesbian women.

Findings from a multiple regression conducted to determine if frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predicted anxiety, were that again, the model as a whole was a significant predictor of anxiety. Similar to the depression analysis, only self-esteem was a significant predictor, with lower self-esteem scores related to higher anxiety. Frequency and stressfulness of sexual discrimination and coming-out were not significant predictors. Since overall, the findings were significant, the null hypothesis was rejected. However, again this finding

must be interpreted with caution since only self-esteem predicted the outcome of anxiety. The following presents an interpretation and discussion of these findings as they relate to the literature and the theoretical framework used for the study.

Discussion of Interpretation of Findings

Significance of findings related to literature

The findings that perceptions of sexual discrimination and coming out did not independently and significantly predict depression or anxiety in lesbian women provided new information, consistent with some previous findings and inconsistent with others. Duffy (2011) presented phenomenological findings of the experiences of lesbian women regarding coming out in an Irish hospital setting. Four lesbian women reported their experience of discrimination and prejudice manifested with overt and covert behaviors, such as inappropriate questions. Whether these outcomes resulted in depression or anxiety was not explored in Duffy's study, thus supporting the need for the current study.

Coming out, depression, and anxiety

The current study finding that coming out did not independently and significantly predict anxiety or depression was not consistent with some previous claims, but consistent with others. For example, Durso and Meyer (2013) interviewed 396 self-identified LGB individuals ages 18 to 59 years and found that one year after the initial study, nondisclosure was related to poorer psychological well-being. In addition, Mehra and Braquet (2011) reported findings that due to homophobic and heterosexist attitudes and behaviors, LGBTQ individuals tend to be depressed with a negative self-image and have feelings of shame, guilt, and failure. They may even attempt or commit suicide

and or abuse drugs or alcohol. As noted by these authors, coming out can be very stressful and may lead to rejection from family members and peers, stigmatization, abuse, and discrimination in school and the workplace. However, Durso and Meyer also reported findings that coming out can have a positive effect, with decreased stress and anxiety, and increased self-esteem, well-being, and quality of life. This finding is more consistent with current study findings that self-esteem rather than coming out was a predictor of depression and anxiety and coming out did not independently and significantly predict depression or anxiety.

My study does not negate the role that coming-out has on depression; however, what is important to acknowledge is the significant contribution made by issues of self-esteem. However, Dentato believes that society and its dominant values, result in conflict that have social implications (Dentato, 2012). It is for this reason it is important for individuals to self-identify with their lifestyle, which ultimately dismisses fear of ostracism and strengthens individualized studies; instead of combining the various groups within the LGBTQ community, which impact effective reporting. Rothblum specifically focused on the lesbian population, and, in his research he found that there were positive mental health outcomes when they disclosed their sexual identity to others (Rothblum & Factor, 2001).

The current finding that most of the participants in this study reported that self-esteem levels predicted depression and anxiety levels, is also consistent with the previous results reported by Mehra and Braquet (2011). Mehra and Braquet also reported findings that LGBTQ people require support during the coming out process,

which may have been a factor that influenced outcomes for their study and the current study.

Perceived sexual discrimination, depression, and anxiety

The current study finding that perceived sexual discrimination did not independently and significantly predict anxiety or depression was not consistent with some previous claims but consistent with others. Previous literature findings are that lesbians may report psychological distress related to perceptions of being discriminated against due to their sexual minority status, as well as their ethnic and racial minority status. For example, Szymanski and Meyer (2008) explored these factors in a sample of 91 Black sexual minority females, of whom 85% were self-identified as lesbian. These authors reported findings that racist and heterosexist events, as well as internalized heterosexism, were positively related to psychological distress, with racist events and internalized heterosexism accounting for the unique variance. Szymanski and Meyer reported that factors that led to outcomes of psychological distress were complex; more information about these contributing factors is needed. This lack of understanding about influential factors may help explain conflicting findings regarding the ability of perceived sexual discrimination to predict depression or anxiety in lesbian women.

While there are researchers who support the relationship between sexual minority status and psychological distress to include anxiety and depression, alternate results have also been shown (House et al., 2011; Szymanski & Meyer, 2008). For example, Szymanski and Meyer (2008) reported the nonexistence of a relationship between internalized racism and mental health in Black lesbians, which is consistent

with current study findings. House et al. (2011) reported that there are additional factors involved in outcomes of poor mental health for gay, lesbian, bisexual, and transgender (GLBT) persons. However, House et al. also reported that these peoples may be at a greater risk for mental health problems, due to factors such as discriminatory events, interpersonal violence, and victimization. House et al. reported findings from a survey of 1,126 self-identified GLBT participants, that interpersonal trauma and sexual discrimination were related to increased likelihoods of engaging in suicidal and nonsuicidal self-injury and high levels of both interpersonal trauma and sexual discrimination were predictors of highest levels of psychological distress.

Alternative findings regarding the mental health outcomes for lesbians were also reported by Rothblum and Factor (2001). These authors compared mental health outcomes between lesbians and their heterosexual sisters. Rothblum and Factor reported that lesbians had higher levels of self-esteem. Rothblum and Factor reported findings from 1,264 questionnaires that lesbians, who were mostly white in the sample, were more educated to a significant degree, and more likely to live in urban areas. They were also more geographically mobile and there was no difference in mental health between the lesbian and non-lesbian populations, but lesbians reported higher levels of self-esteem.

DeAngelis (2002) further reported that lesbians may not always report psychological distress outcomes and they have demonstrated positive mental health outcomes if their sexual identity has been disclosed to others. DeAngelis explained that there are large population-based public health studies that show higher rates of major

depression, generalized anxiety disorder, and substance use or dependence in lesbian and gay youths. However, this information tends to be from the use of general surveys. Due to the difficulty in finding large samples of sexual minority individuals, data may be from samples of individuals who suffered from other issues such as HIV. Findings from large public health surveys are that LGB respondents report higher rates of perceived discrimination when compared to heterosexuals. However, in large-scale studies of lesbians and bisexual women, researchers have found that when women are "out," and this is linked to more positive mental health outcomes and higher self-esteem. Thus, conflicting findings have been shown, and as noted by DeAngelis, these findings may be due to intervening factors and methodological differences in studies.

Sexual minority status has been shown to lead to poor mental health outcomes. For example, hate crimes can lead to suicidality in sexual-minority adolescents and minority status is related to psychotic symptoms in LGB individuals (Duncan & Hatzenbuehler, 2014; Gevonden et al., 2014). Sexual minority status can lead to depression, suicide ideation, suicide plans, suicide attempts, and medically serious suicide attempts across racial groups (Burton et al., 2013; Choi et al., 2013; Stone et al., 2014). However, there may be factors that influence these outcomes such as genetic factors, childhood sexual abuse, and risky family environment influence (Zietsch et al., 2012). Thus, there is a need to further explore factors that influence the relationships between perceived sexual discrimination and depression and anxiety.

New factors to explore

Hartwell, Serovich, Grafsky, and Kerr (2012) reported on the need for studies to expand GBL research, which supported the current study designed to understand if perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety. Thus, current study findings added to the research base regarding these factors. New information was provided since discrimination and coming-out did not independently and significantly predict depression and anxiety. Literature findings that self-esteem predicts depression and anxiety were supported. However, this supports the need for a future study to further explore factors related to self-esteem.

For example, researchers have found that forgiveness increases self-esteem (Greene & Britton, 2013). Greene and Britton (2013) explored the influence of forgiveness on self-esteem and shame in 657 LGBTQ individuals. Survey findings were that higher self-forgiveness and lower shame proneness predicted self-esteem. Forgiveness of self, others, and situations independently and partially mediated the relationship between shame proneness and self-esteem. Thus, while coming out may be stressful or it may increasee well-being (Duffy, 2011; Durso & Meyer, 2013; Mehra & Braquet, 2011), this may be influenced by self-esteem levels and forgiveness. The coming out process may lead to discrimination and prejudice (Duffy, 2011), which can also impact self-esteem, but forgiveness may influence this outcome as well. Durso and Meyer (2013) found that nondisclosure was related to poorer psychological well-being, but again, forgiveness may have been an intervening factor.

In summary, literature findings are that lesbian women may experience distress related to coming out and perceived discrimination but this may or may not impact their

self-esteem levels depending on factors such as support and forgiveness of the self and others. The current study results provide new information that perceived discrimination and coming out did not independently and significantly predict depression or anxiety in lesbian women. However, self-esteem did significantly predict depression and anxiety in this group, with low self-esteem resulting in higher levels of depression and anxiety. Since self-esteem was a significant predictor and perceived discrimination and coming out were not significant predictors of anxiety or depression, more information is needed to understand why. Factors such as forgiveness and support require further exploration. In addition, factors such as childhood sexual abuse and family environment that may impact outcomes need to be explored (Zietsch et al., 2012).

It is important to explore any factors that might be related to mental health status in the lesbian population. This is because sexual minority status is related to mental health issues such as depression and anxiety. For example, Duncan and Hatzenbuehler (2014) explained that sexual minority status is factors in hate crimes and suicidality. Specifically, these authors examined this issue in a sample of sexual minority adolescents in Boston and reported findings that sexual minority youths from neighborhoods with higher rates of LGBTQ assault hate crimes were more likely to report suicidal ideation and suicide attempts. The relationship between sexual orientation and suicide ideation, suicide plans, suicide attempts, and medically serious suicide attempts was further explored by Stone, Luo, Ouyang, Lippy, Hertz, and Crosby (2014). Stone et al. reported findings from data from local youth risk behavior surveys taken from 2001 to 2009, that there was a relationship between sexual orientation and

suicide risk outcomes. Those among a sexual minority status may suffer from victimization and poor mental health (Burton, Marshal, Chisolm, Sucato, & Friedman, 2013). Burton et al. reported that youths of this status reported significantly higher rates of depression and suicidality compared to heterosexual youths.

Not consistent with current study findings Choi et al. (2013) reported findings that discrimination was related to psychological distress and negative mental health outcomes for Black, Asian and Pacific Islanders (APIs), and Latino men having sex with men (MSM); thus perceptions of discrimination due to sexual identity led to poor mental health outcomes for all groups studied. However, there were factors that impacted outcomes. There were different types and sources of discrimination. Specifically, more past year experiences of general community racism and perceived homophobia among heterosexual friends was more positively and significantly related to anxiety and depression. The positive relationship between perceived racism by the gay community with anxiety was found in all groups and it was statistically significant for APIs. Family homophobia perceptions were not related to anxiety or depression.

Factors that influence outcomes were also noted by Collier, Bos, and Sandfort (2013). These authors explored the impacts of homophobic name-calling on mental health in secondary school students. Collier et al. (2013) reported finding that male adolescents and those with same-sex attractions reported significantly more victimization from homophobic name-calling, compared to female and non-same-sex attracted peers. However, homophobic name-calling was not independently related to psychological distress when gender, sexual attractions, gender nonconformity, and other

negative treatment by peers were controlled. The hypothesis that homophobic name-calling would be more strongly related to psychological distress in males, same-sex attracted, and gender nonconforming adolescents, was not supported. Again, it was important to understand factors that influenced these outcomes such as gender, sexual attractions, gender nonconformity, and other negative treatment by peers.

According to Zietsch et al. (2012), gays, lesbians, and bisexuals are at a greater risk for psychiatric symptoms and disorders such as depression, which again supports the need to understand these relationships. Zeitsch et al. explained that outcomes may be due to the prejudice and discrimination experienced, but other influential mechanisms must be understood. Zietsch et al. studied the factor of a shared genetic or environmental etiology in a sample of adult twins and reported findings that non-heterosexual males and females reported higher rates of lifetime depression compared to heterosexual counterparts. Genetic factors accounted for 60% of this correlation between sexual orientation and depression. Additional factors to include childhood sexual abuse and risky family environment significantly predicted sexual orientation and depression and require further research and exploration.

A summary of factors noted in studies, that might impact self-esteem and other outcomes in lesbian woman, includes findings by Mehra and Braquet (2011) who reported that LGBTQ people require support to positively impact the coming out process. Szymanski and Meyer (2008) found that factors that led to outcomes of psychological distress were complex and more information about these contributing factors is needed. This lack of understanding about contributing factors may explain

conflicting findings regarding the ability of perceived sexual discrimination to predict depression or anxiety in lesbian women. DeAngelis (2002) also reported that conflicting findings have been shown, and this may be due to intervening factors and methodological differences in studies. Factors that may influence these outcomes include genetic factors, childhood sexual abuse, and risky family environment influence (Zietsch et al., 2012). Researchers have also found that forgiveness increases self-esteem (Greene & Britton, 2013). Collier et al. (2013) reported it is important to understand factors that influenced these outcomes such as negative treatment by peers. Bockting et al. (2013) reported that social stigma was significantly and positively related to psychological distress, but peer support from other transgender people moderated this relationship. Thus, factors such as forgiveness, support, and childhood sexual abuse, negative treatment by peers, peer support, and family environment require further exploration. This supports the need to further explore the use of the minority stress model in a future study of factors related to self-esteem as a predictor of depression and anxiety in lesbian populations. Specifically, the minority stress model can be used to explore factors that overcome the minority stress experienced, to include social support, forgiveness, and peer support, which potentially increase self-esteem, and impacts related outcomes such as depression and anxiety.

Significance of findings related to theoretical framework

The theoretical framework used for this study was based on the minority stress model, which was conceptualized by Meyer (2003). This model helps to explain increased rates of psychological distress related to stigma, prejudice, and discrimination.

Consistent with the minority stress model, minority stress, based on social views and structures, potentially leads to psychological distress, to include depression and anxiety (Meyer, 2003). Meyer's model has been used to explore minority stress in sexual minorities (Bruce, Ramirez-Valles, & Campbell, 2008; Meyer, 2003). This model considers the elements of the stress process that are unique to minority stress and the strengths and weaknesses of the environment and the individual. For the current study, this model was used to explain that coming out, perceptions of discrimination due to sexual identity, and self-esteem predict outcomes of depression and anxiety. However, current study findings only showed that self-esteem significantly predicted depression or anxiety. The combination of all factors did significantly predict outcomes in a regression model, however it was only self-esteem that was the significant predictor of outcomes. The finding that perceived discrimination due to sexual status did not predict outcomes was not consistent with the minority stress model.

There are multiple studies that support the use of the minority stress model. For example, Gevonden et al. (2014) used the minority stress model to examine sexual minority status and related psychotic symptoms. Findings from a cross-sectional survey were that rates of psychotic symptom were increased in the LGB population compared with rates of the heterosexual population, which was explained by the minority stress experienced by the LGB group. Burton et al. (2013) also reported findings that youths with a sexual minority status may suffer from victimization and poor mental health with significantly higher rates of depression and suicidality, compared to heterosexual youths.

Again, the minority stress model was supported since it was the stigma and discrimination experienced that led to chronic stress and related mental health problems. Statistically significantly higher levels of sexual minority-specific victimization were associated with depressive symptoms and suicidality. The current study findings were not consistent with these results since perceptions of discrimination due to sexual identity did not predict outcomes of depression or anxiety.

Bockting et al. (2013) also provided support for the minority stress model as a theoretical framework in the study of stigma and mental health. Bockting et al. investigated the relationship between minority stress and mental health and potential influential factors of resilience (family support, peer support, identity pride). Survey findings from a sample of 1,093 male-to- female and female-to-male transgender persons, revealed that there was a high prevalence of clinical depression, anxiety, and somatization. Results were also that social stigma was significantly and positively related to psychological distress, but peer support from other transgender people moderated this relationship. This study supported the need to consider factors that contribute to outcomes such as peer support. It may be that peer support, which was not controlled or measured, was a factor that contributed to outcomes in the current study.

The minority stress model also considers factors that influence outcomes. According to the minority stress model, "social support, self-acceptance, and integration of minority identity can ameliorate minority stress" (Meyer, 2003, p. 943). Thus, current study findings that self-esteem alone predicted outcomes, and perceptions of discrimination due to sexual minority status did not predict outcomes, does not initially

support the minority stress model. However, the minority stress framework may still explain these findings, once contributing factors are considered. As noted by Bockting et al. (2013), factors such as peer support may have influenced outcomes. This supports the need to further explore the use of the minority stress model in a future study of factors related to self-esteem as a predictor of depression and anxiety in lesbian populations. Specifically, the minority stress model can be used to explore factors that overcome the minority stress experienced, to include social support, which potentially increases self-esteem and impacts related outcomes such as depression and anxiety.

Limitations

There are several study limitations, which may have impacted outcomes. First, study limitations regard the sample, which included participants from a lesbian population from United States of America. Since the sample selected for this study was from an available volunteer population the results of this research may not be generalizable to non-volunteer individuals. The study is further limited by the use of a lesbian population from United States of America, which may not represent lesbian females from different ethnic and socioeconomic backgrounds and countries, limiting generalizability to additional geographic locations and limiting external validity of the study. The inclusion of the lesbian population with the exclusion of other sexual, minority populations and heterosexual populations, limited generalizability of findings to lesbian populations only. In addition, the use of a small sample size with limited composition, which may not accurately represent the population, also limits generalizability of findings.

The study is also limited by its design. Since the study variables were not directly manipulated, results are observed from existing groups, and findings are descriptive. The use of a quantitative study did not allow for the gathering of detailed information, which limited the understanding of outcomes. However, the use of a quantitative study helped to overcome potential for researcher interpretation bias.

The study is further limited by the choice of instruments. The use of one quantitative survey instrument for each variable may limit findings. Specifically, the use of the RSE (Rosenberg, 1965), the BDI-II(Beck et al., 1996), and the State Trait Anxiety Inventory for Adults (Spielberger et al., 1983) for assessment of self-esteem, depression, and anxiety may have limited findings. Additionally, the use of the Information Form to gather data regarding coming-out and perceptions of discrimination, which may or may not reflect all aspects of self-esteem, depression, anxiety, coming-out, or perceptions of discrimination, may have limited findings. While accuracy of self-reporting was assumed, this may or may not have been the case which would limit study findings. However, the use of identification numbers instead of names was expected to help overcome this potential limitation.

The study is limited by the use of the minority stress model to explain findings and help eliminate threats to construct validity, since this theory is connected to the variables and topic studied. However, while the minority stress model helps explain how stress associated with being a lesbian may contribute to mental health outcomes, explanations are limited and may not provide a full comprehension of study findings.

Conclusions

Conclusions for the study are as follows: frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predict depression, with low self-esteem as only significant predictor of depression; frequency and stressfulness of sexual discrimination, coming-out, and self-esteem levels predict anxiety, with low self-esteem as only significant predictor of anxiety.

Previous findings regarding mental health issues and related predictors in the lesbian community were mixed (House et al., 2011). In this study, perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in the lesbian community, but only self-esteem was the significant predictor in this equation. This finding is consistent with some previous findings but not others. Researchers have found that factors potentially related to these mixed outcomes include perceptions of discrimination, stigma, and coming-out (DeAngelis, 2002; NAMI, 2007; Patterson& D'Augelli, 2013). While the current study provided new insights regarding the ability of these factors to predict depression or anxiety in lesbian women, results still require further examination. The current study presented with new and important insights. Study findings provide new information to advance the knowledge in the discipline and advance practice and policy with a focus on lesbian experiences specifically. Findings may support professional practice and allow practical application because new information demonstrates the need to consider issues of self-esteem and factors that may impact self-esteem levels as well as feelings associated with discrimination and coming-out, in order to deal with depression and anxiety in lesbian women. Study findings are relevant to society and have potential implications that may lead to positive social

changes since new information will help to increase self-esteem and decrease the negative impacts of discrimination and coming out, which ultimately will help to decrease depression and anxiety problems in the lesbian community.

Implications

Implications of findings are that low self-esteem predicts depression and anxiety in the lesbian community. While this study presents with limitations, it provided important information regarding the finding that low self-esteem predicted depression and anxiety in the lesbian population. The findings from this study provided information regarding the finding that it was low self-esteem rather than the frequency and stressfulness of sexual discrimination and coming-out, which predicted both depression and anxiety in this population. These unexpected findings provided insights into factors that predict depression and anxiety in the lesbian population and the need to further explore these factors.

The implications of ignoring this community, in particular, the lesbian population, can gravely impact society because they are members of the greater whole. Though my research focuses on the advancement of understanding perceptions of discrimination, coming-out and self-esteem levels with regard to depression and anxiety, to bring awareness within the field of psychology is not enough, this information is relevant to society as a whole given the mass murder of members of the LGBTQ community in Orlando, Florida. This research can lead to positive social changes by helping to increase self-esteem and coming-out and decrease the negative impact of

discrimination that may lead to depression and anxiety problems in the lesbian community. The results of my finding shows that self-esteem is a significant and independent predictor of depression and anxiety.

Recommendations for Future Research

Recommendations regarding further actions and proposed future research include the following:

1. Since there are study limitations due to the sample size and composition, it is recommended that it be replicated in a future study that includes a larger sample, randomly selected from multiple countries.

2. Since the study is limited by its design, it is recommended that a future study explore multiple variables that might impact self-esteem. For example, additional factors such as family functioning, forgiveness, support, childhood sexual abuse, negative treatment by peers, and peer support, that may affect self-esteem need to be controlled for or measured to determine the effects of self-esteem on depression or anxiety in the lesbian population. It is also recommended that a future study include the use of a mixed methods approach. This would allow for the gathering of quantitative data for statistical analysis and comparisons as well as detailed information to help explain quantitative findings and provide new insights.

3. Since the study is limited by the choice of instruments, it is recommended that a future study include the use of multiple instruments to assess multiple aspects of the issues. For example, instruments can be used to assess factors that impact self-esteem

such as family functioning, forgiveness, support, childhood sexual abuse, negative treatment by peers, and peer support. In addition, it is recommended that a mixed survey instrument be used to gather both quantitative data and qualitative information to help explain findings. While low self-esteem was shown to be a predictor of depression and anxiety in the lesbian group studied, it is not clear why frequency and stressfulness of sexual discrimination and coming-out were not significant predictors of these outcomes. Narrative data would help explain all study findings.

In summary, while this study provided important and useful information regarding the ability of low self-esteem to predict depression and anxiety in the lesbian population, a more comprehensive understanding of the topic would be even more beneficial. It is therefore recommended that a future mixed design study be conducted to further investigate the variables and findings from this study as well as additional factors that may be related to current study results. For example, a study is needed to explore reasons for low or high self-esteem levels and the relationships between: race/ethnicity or culture, age, family functioning, forgiveness, support, childhood sexual abuse, negative treatment by peers, and peer support and outcomes of self-esteem, depression, and anxiety. While it is clear that low self-esteem predicted depression and anxiety in the lesbian sample for this study, effects of different variables on self-esteem is not understood. This information is needed to further comprehend why low self-esteem predicted depression and anxiety but frequency and stressfulness of sexual discrimination and coming-out, did not predict these outcomes.

Overall Study, Expectations, Findings, and Reflections

In conclusion, the purpose of this quantitative study was to determine if perceptions of discrimination, coming-out, and self-esteem levels predict depression and anxiety in the lesbian community. It was expected that all related hypotheses would be supported. It was therefore expected that perceptions of discrimination, coming-out, and self-esteem levels would predict depression and anxiety in the lesbian community, with all variables contributing to the outcomes. A quantitative study using a quantitative survey research design was appropriate for this study since it provided data for statistical comparisons to test hypotheses. The sample included 105 lesbian women who filled out study surveys.

Findings were that both hypotheses were supported, however only self-esteem was a significant and independent predictor of depression or anxiety. These findings were partially consistent with views presented in the literature. Findings were also partially consistent with the theoretical framework, the minority stress model. Since perceived discrimination due to sexual minority status did not significantly and independently predict depression or anxiety, this did not support the minority stress model. However, since self-esteem did predict outcomes, this factor may have served as a strength influencing the impact of minority stress. Factors that influenced self-esteem levels therefore require further exploration.

Thus, while study findings are important, more information is needed to fully comprehend factors related to self-esteem and outcomes of depression and anxiety. For example, a study is needed to understand factors that influenced self-esteem levels such as race/ethnicity or culture, age, family functioning, forgiveness, support, childhood

sexual abuse, negative treatment by peers, and peer support. A future study of these issues would help point out how these factors impact self-esteem and how this might impact outcomes of depression or anxiety. This information would be helpful considering that each lesbian woman presents with a unique set of circumstances, levels of support, and background experiences.

Study findings are important when considering treatment for the lesbian female suffering from depression or anxiety. Since self-esteem levels were shown to be significant predictors of depression and anxiety in lesbian women, conclusions are that factors influencing self-esteem must be understood by counselors to help all lesbian women suffering from depression or anxiety. A counselor helping these women must consider issues of self-esteem, support and forgiveness, and other issues such as family functioning and childhood traumas. Counselors must recognize the need to consider self-esteem and related factors in treatment in order to provide appropriate and competent care. In fact, it may be that low self-esteem and related factors are the cause of the distress, and this must be addressed in treatment.

Therefore, a future study is recommended to further explore the impact of these specific factors. This future study would include a randomly selected diverse client population with different characteristics and presenting problems, from multiple countries. In this manner, relationships among factors would be determined and findings would be from a large, random, and representative sample and could be generalized to all lesbian populations in different countries.

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Appendix A: Self-Esteem Scale

1. STRONGLY AGREE
2 AGREE
3. DISAGREE
4. STRONGLY DISAGREE

1. I feel that I'm a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.**
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.**
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.**
9. I certainly feel useless at times.**
10. At times I think I am no good at all.**

Appendix B: Consent Form

CONSENT FORM

You are invited to take part in a research study of health issues in the Lesbian community. The researcher is inviting Lesbians who are 18 years and older and living in the United Stated of America (USA) to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. Please be advised that no personally identifiable information will be collected or requested at any time during this survey.

This study is being conducted by a researcher named Adrien Purvis, who is doctoral student at Walden University.

Background Information:
The purpose of this study is to determine what impact health and social issues related to the Lesbians have on the Lesbian community.

Procedures:
If you agree to be in this study, you will be asked to:

- Complete this online survey, which should take you about 15 minutes to complete

Here are some sample questions:

- How many times have been treated unfairly by neighbors because you are a sexual minority? Never, once in a while, sometimes, a lot, most of the times, almost all the time.
- How many times have been treated unfairly by co-workers, fellow-students, and or because you are a sexual minority? Never, once in a while, sometimes, a lot, most of the times, almost all the time.
- Select one: I sleep somewhat more than usual. I sleep somewhat less than usual, I sleep a lot more than usual, I've experienced no change in my sleep patterns.

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one will treat you differently if you decide not to be in the

study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life; such as fatigue, stress or becoming upset. Being in this study would not pose risk to your safety or wellbeing.

One potential benefit of this study includes gaining a better understanding of how various stressful specific to Lesbians effect the Lesbian community, which can later help Lesbians develop strategies to mitigate or minimize the effects of these stressful events.

At the end of the survey you will be provided with a link to access results once the study has been completed.

Payment:
There is no payment, thank you gifts, or reimbursements provided for your participation in this study.

Privacy:
Any information you provide will be kept anonymous. No personally identifiable information will be collected. Your personal consent is applied through the completion of the survey. So, there is no need to provide your name, signature, email address, or any other personal information. Data will be kept secure on a computer that is password protected and will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at Adrien.purvis@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is Insert ONE number depending on location of participant 612-312-1210. Walden University's approval number for this study is **01-19-16-0028508** and it expires on **January18, 2017.**

Please print or save this consent form for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By clicking the link below, I understand that I accept the terms described above and agree to participate in the survey.

Appendix C: Outness Inventory

Use the following rating scale to indicate how open you are about your sexual orientation to the people listed below. Try to respond to all of the items, but leave items blank if they do not apply to you.

1 = person definitely does NOT know about your sexual orientation status
2 = person might know about your sexual orientation status, but it is NEVER talked about
3 = person probably knows about your sexual orientation status, but it is NEVER talked about
4 = person probably knows about your sexual orientation status, but it is RARELY talked about
5 = person definitely knows about your sexual orientation status, but it is RARELY talked about
6 = person definitely knows about your sexual orientation status, and it is SOMETIMES talked about
7 = person definitely knows about your sexual orientation status, and it is OPENLY talked about

0 = not applicable to your situation; there is no such person or group of people in your life

1. mother	1	2	3	4	5	6	7
2. father	1	2	3	4	5	6	7
3. siblings (sisters, brothers)	1	2	3	4	5	6	7
4. extended family/relatives	1	2	3	4	5	6	7
5. my new straight friends	1	2	3	4	5	6	7
6. my work peers	1	2	3	4	5	6	7
7. my work supervisor(s)	1	2	3	4	5	6	7
8. members of my religious community (e.g., church, temple)	1	2	3	4	5	6	7
9. leaders of my religious community (e.g., church, temple)	1	2	3	4	5	6	7
10. strangers, new acquaintances	1	2	3	4	5	6	7
11. my old heterosexual friends	1	2	3	4	5	6	7

Appendix D: Beck Depression Inventory – II

1- Sadness 0- I do not feel sad 1- I feel sad much of the time 2- I am sad all the time 3- I am so sad or unhappy that I can't stand it	**2- Pessimism** 0- I am not discouraged about my future 1- I feel more discouraged about my future than I used to be 2- I do not expect things to work out for me 3- I feel my future I hopeless and will only get worse
3- Past failure 0- I do not feel like a failure 1- I have failed more than I should have 2- As I look back, I see a lot of failures 3- I feel I am a total failure as a person	**4- Loss of pleasure** 0- I get as much pleasure as I ever did from the things 1- I enjoy 2- I don't enjoy things as much as I used to 3- I get very little pleasure from the things I used to enjoy 4- I can't get any pleasure from the things I used to enjoy
5- Guilty feelings 0- I don't feel particularly guilty 1- I feel guilty over many things I have done or should have done 2- I feel quite guilty most of the time 3- I feel guilty all of the time	**6- Punishment feelings** 0- I don't feel I am being punished 1- I feel I may be punished 2- I expect to be punished 3- I feel I am being punished
7- Self-dislike 0- I feel the same about myself as ever 1- I have lost confidence in myself 2- I am disappointed in myself 3- I dislike myself	**8- Self-criticalness** 0- I don't criticize or blame myself more than usual 1- I am more critical of myself than I used to be 2- I criticize myself for all of my faults 3- I blame myself for everything bad that happens
9- Suicidal thoughts or wishes 0- I don't have any thoughts of killing myself 1- I have thoughts of killing	**10- Crying** 0- I don't cry anymore than I used to 1- I cry more than I used to 2- I cry over every little thing 3- I feel like crying, but I can't

myself, but I would not carry them out 2- I would like to kill myself 3- I would kill myself if I had the chance	
11- Agitation 0- I am no more restless or would up than usual 1- I feel more restless or would up than usual 2- I am so restless or agitated that I have it's hard to say still 3- I am so restless or agitated that I have keep moving or doing something	**12- Loss of interest** 0- I have not lost interest in other people or activities 1- I am less interested in other people or things than before 2- I have lost most of my interest in other people or things 3- It's hard to get interest in anything
13- Indecisiveness 0- I make decisions about as well as ever 1- I find it more difficult to make decisions than usual 2- I have much greater difficulty in making decisions than I used to 3- I have trouble making any decisions	14- **Worthlessnes**s 0- I do not feel I am worthless 1- I don't consider myself as worthwhile and useful as I used to 2- I feel more worthless as compared to other people 3- I feel utterly worthless
15- Loss of energy 0- I have as much energy as ever 1- I have less energy than I used to have 2- I don't have enough to do very much 3- I don't have energy to do anything	**16- Changes in sleeping pattern** 0- I have not experience any change in my sleeping pattern (0) 1a- I sleep somewhat more than usual (1) 1b- I sleep somewhat less than usual (2) 2a- I sleep a lot more than usual (3) 2b- I sleep most of the day (4) 3a- I sleep most of the day (5) 3b- I wake up 1-2 hours early and can't get back to sleep (6)
17- Irritability 0- I am no more irritable than usual 1- I am more irritable than usual	**18- Changes in appetite** 0- I have not experienced any change in my appetite (0) 1a- My appetite is somewhat less than usual (1) 1b- My appetite is somewhat more than

2- I am much more irritable than usual 3- I am irritable all the time	usual (2) 2a- My appetite is much less than before (3) 2b- My appetite is much greater than before (4) 3a- I have no appetite at all (5) 3b- I crave food all the time (6)
19- Concentration difficulty 0- I can concentrate as well as ever 1- I can't concentrate as well as usual 2- It's hard to keep my mind on anything for very long 3- I find I can't concentrate on anything	**20- Tiredness or fatigue** 0- I am no more tired or fatigued than usual 1- I get more tired or fatigued more easily than usual 2- I am too tired or fatigued to do a lot of the things I used to do 3- I am too tired or fatigued to do most of the things I used to do
21- Loss of interest in sex 0- I have not noticed any recent change in my interest in sex 1- I am less interested in sex than I used to be 2- I am much less interested In sex now 3- I have lost interest in sex completely	

Appendix E: Schedule of Sexually Discriminatory Events

Please answer the following questions about events that may have happened to you because you are a sexual minority. A sexual minority is a person who is gay, lesbian, bisexual, transgendered, or intersexed.

Use the following scale to answer these questions:

1 = Never
2 = Once in a while (less than 10% of the time)
3 = Sometimes (10 – 25% of the time)
4 = A lot (26 – 49% of the time)
5 = Most of the time (50 – 70% of the time)
6 = Almost all of the time (more than 70% of the time)

_____ 1. How many times have you been treated unfairly by teachers and professors because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 2. How many times have you been treated unfairly by your employers, bosses, and supervisors because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 3. How many times have you been treated unfairly by your coworkers, fellow students, and/or colleagues because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 4. How many times have you been treated unfairly by people in service jobs (waiters, bartenders, store clerks, bank tellers, and others) because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6

Not at all stressful
Very stressful

_____ 5. How many times have you been treated unfairly by strangers because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 6. How many times have you been treated unfairly by people in helping jobs (doctors, nurses, mental health providers, case workers, school counselors, and others) because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 7. How many times have you been treated unfairly by neighbors because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 8. How many times have you been treated unfairly by institutions (schools, hospitals, law firms, the police, the courts, governmental agencies and others) because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 9. How many times have you been treated unfairly by people you thought were your friends because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 10. How many times have you been judged or rejected by acquaintances, colleagues, or people you thought were your friends because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6

Not at all stressful
Very stressful

_____11. How many times have you been judged or rejected by your family because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 12. How many times have you been called an offensive name like “faggot,” “dyke,” or other names?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 13. How many times have you gotten into an argument or fight about something discriminatory that was done to you or done to somebody else because of being a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 14. How many times have you been made fun of, picked on, or threatened with harm because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 15. How many times have others avoided talking to you or getting to know you because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful
Very stressful

_____ 16. How many times have others automatically assumed you were heterosexual?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful Very stressful

_____ 17. How many times have you been stopped or questioned by police or security personnel because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful Very stressful

_____ 18. How many times have you been really angry about something discriminatory that was done to you because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful Very stressful

_____ 19. How many times have you been forced to take drastic steps (such as quitting your job, moving away, filing a grievance, filing a lawsuit, or other actions) to deal with something that was done to you because you are a sexual minority?

How stressful was this for you? 1 2 3 4 5 6
Not at all stressful Very stressful

Appendix F: Demographic Questionnaire

Please fill in the blanks for the following items:

1. Gender: _____

2. Lesbian self-identification: _____

3. Age: _____

4. Race/ethnicity: _____

Appendix G: State-Trait Anxiety Inventory

Items for this inventory are as follows:

1 (not at all); 2 (somewhat); 3 (moderately so); 4 (very much so)

1. I feel calm.
2. I feel secure.
3. I feel tense.
4. I feel strained.
5. I feel at ease.
6. I feel upset.
7. I am presently worrying over possible misfortunes.
8. I feel satisfied.
9. I feel frightened.
10. I feel comfortable.
11. I feel self-confident.
12. I feel nervous.
13. I feel jittery.
14. I feel indecisive.
15. I am relaxed.
16. I feel content.
17. I feel worried.
18. I feel confused.
19. I feel steady.
20. I feel pleasant.